

HOUNDS

THEIR POINTS AND MANAGEMENT



FRANK TOWNEND BARTON
M.R.C.V.S.



JOHN A. SEAVERNS

TUFTS UNIVERSITY LIBRARIES



3 9090 013 411 596

Webster Family Library of Veterinary Medicine
Cummings School of Veterinary Medicine at
Tufts University
200 Westboro Road
North Grafton, MA 01536

Hounds

STANDARD WORKS
By FRANK TOWNEND BARTON

TERRIERS: THEIR POINTS AND MANAGEMENT. With 40 Illustrations.
Crown 8vo. **5s.** net.

Standard.—"A thoroughly practical treatise, that tells all that need be known by the owner of terriers, whether he keeps them for companionship, sport or show. All the leading kinds of terriers are portrayed, and the illustrations are lavish."

Graphic.—"This book ought to rank as one of the text-books on terriers."

PONIES, AND ALL ABOUT THEM.
With 28 Illustrations. Demy 8vo. **7s. 6d.** net.

Pall Mall Gazette.—"The volume can be recommended for a place in the library of every man who has a care for a horse. The illustrations are informative and have been carefully selected."

Globe.—"Ponies' is a useful book. It will find, no doubt, as it deserves, a ready acceptance."

PHEASANTS: IN COVERT AND AVIARY. With 4 Coloured Plates from Life by H. GRÖNVOLD, and 37 other Illustrations. Crown 4to. **10s. 6d.** net.

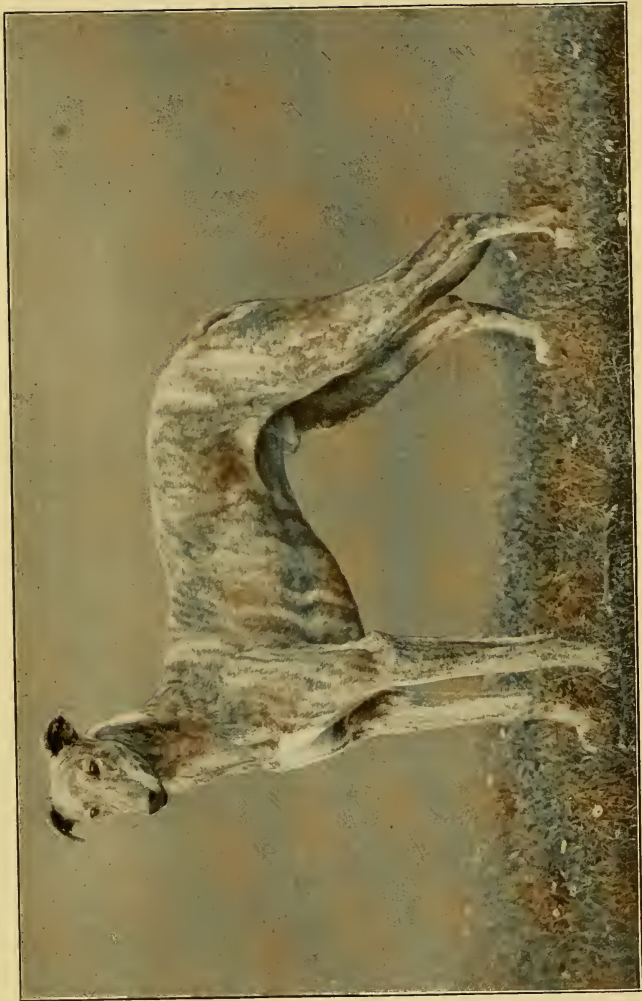
The Times.—"A handsome volume by a well-known naturalist of sport, affording a comprehensive practical guide to the pheasant breeder."

The Tatler.—"Will be a standard work on the subject for many years. Everything in any way connected with the rearing and preserving of pheasants is dealt with exhaustively and with expert knowledge."

HOUNDS. With 37 Illustrations. Crown 8vo. **5s.** net.

GUN DOGS. With 46 Illustrations. Crown 8vo. **5s.** net.

JOHN LONG, LIMITED, LONDON



“FULLERTON.” WINNER OF THE WATERLOO CUP IN 1890-1-2
DIVIDED IN 1889.

HOUNDS

Frontispiece

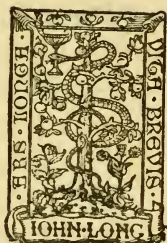
Hounds

By

Frank Townend Barton, M.R.C.V.S.

Author of

“Terriers: Their Points and Management,” “Ponies, and All
About Them,” “Pheasants: in Covert and
Aviary,” “Gun Dogs”



WITH THIRTY-SEVEN ILLUSTRATIONS

London

John Long, Limited

Norris Street, Haymarket

[All Rights Reserved]

verms

First Published in 1913

CONTENTS

	PAGE
PREFACE - - - - -	11
INTRODUCTION - - - - -	13
CHAP. I. Points of a Hound - - - - -	21
II. Elementary Anatomy of a Hound - - - - -	25
III. Elementary Anatomy of a Hound (<i>continued</i>) - - - - -	35
IV. Conformation of a Hound - - - - -	61
V. The Foxhound: Essential Features - - - - -	65
VI. A Glance at the Evolution of a Foxhound - - - - -	71
VII. The Bloodhound - - - - -	129
VIII. The Afghan Greyhound - - - - -	138
Harriers - - - - -	141
IX. Otter-hounds - - - - -	148
The Borzoi - - - - -	159
The Deerhound - - - - -	164
The Irish Wolfhound - - - - -	167
The Great Dane - - - - -	173
Beagles - - - - -	181
The Dachshund - - - - -	191
The Basset-hound - - - - -	200
X. The Whippet - - - - -	206
XI. Portable Hound Kennels - - - - -	211
XII. Diseases Affecting the Eyes - - - - -	217
XIII. Diseases of the Respiratory Organs - - - - -	238

CHAP.	PAGE
XIV. Rheumatism, Kennel Lameness or Chest Founder - - - - -	249
XV. Poisons, and what to do in Cases of Poisoning	255
XVI. Diseases Affecting the Liver, etc. - -	261
XVII. Diseases and Disorders of the Digestive Tract	269
XVIII. Some Diseases of the Nervous System -	278
XIX. Entozöa (Worms) - - - - -	292
XX. Fractures and Dislocations - - -	297
XXI. Wounds and Various other Injuries - -	302
INDEX - - - - - -	307

LIST OF ILLUSTRATIONS

PAGE

Greyhound, "Fullerton" - - - -	<i>Frontispiece</i>
Points of a Foxhound - - - -	22
Skeleton Structure of Hound - - - -	28
A Full Pack of Foxhounds and Otter-hounds - -	74
A Mixed Pack—Otter and Crossed Foxhounds - -	76
The Young Entry in the Paddock - - - -	80
The Late Mr James Hedley - - - -	88
Greyhound, "Hallow Eve" - - - -	90
Greyhound - - - -	104
Greyhound, "Thoughtless Beauty" - - - -	114
A Brace of Greyhounds - - - -	118
Greyhound, "Texture" - - - -	122
Greyhound, "Dark-Scent" - - - -	126
Bloodhound - - - -	130
A Group of Afghan Greyhounds - - - -	138
Harrier - - - -	142
A Mixed Pack of Otter-hounds - - - -	146
Members of the Dumfriesshire Pack - - - -	148
Otter Hunting - - - -	150
The Dumfriesshire Pack - - - -	152
Pure Otter-hounds and Foxhounds Crossed with Otter-hounds - - - -	154
A Famous Otter-hound, "Talisman" - - - -	156

	PAGE
Members of an Otter Hunt Comparing Notes - -	158
Borzois - - - - -	162
A Trio of Deerhounds - - - - -	164
Deerhound - - - - -	166
Irish Wolfhound, Ch. : "Cotswald" - - - - -	168
A Typical Great Dane - - - - -	174
Beagle - - - - -	182
Improved Dachshunds - - - - -	192
Smooth-coated Basset-hound - - - - -	200
Rough-coated Basset-hound - - - - -	202
Portable Hound Kennel - - - - -	212
Plan of same - - - - -	213
Range of Hound Kennels - - - - -	214
Double Kennel - - - - -	215
Kennels (Part Covered-in Runs) - - - - -	216

PREFACE

VERY little excuse need be offered for the production of the present work, as the author believes that hitherto no other small manual exclusively devoted to hounds of the various kinds has been published.

That elaborate and costly books upon the Foxhound and Greyhound have appeared from time to time is indisputable, but such have never satisfied the demand so frequently made for a book of general utility within the grasp of the sportsman whose means do not permit him to encompass the more pretentious works devoted to this subject. Without fear of contradiction, the "Hounds" afford sport not attainable through any other varieties of the canine tribe, and such "sport" constitutes indirectly the backbone of the British Empire, calling, as it does in the case of fox-hunting, for the exercise of qualifications essentially manly—for pluck, for endurance, for skill, and a commensurate respect for the equality, or it may be superiority, of brother sportsmen.

F. T. BARTON.

INTRODUCTION

“ Here’s to the hound
With his nose upon the ground.”

WHYTE MELVILLE.

BEFORE dipping into what may be termed the real substance of the work, it is expedient to refer, in a general sense, to the comparative uses of the different varieties of hounds, together with a sketch of the analogy of each so far as the hound characteristics are concerned.

Lord Wilton, in a work entitled *Sports and Pursuits of the English*, says that “about the year 1750 hounds began to be entered solely to fox,” but there is plenty of evidence to prove that long before this date there were numerous fox-hunting establishments in England. In the year 1713 Sir John Tyrwhitt, Mr C. Pelham and Mr Robert Vyner came to an arrangement that each lot of Foxhounds kept by them should be united so as to form one pack, and that their interests in the same should be divided. In all there were 32 hounds, or 16 couples, and the gentlemen named hunted the country (Brocklesby) from 1714, though the hunt was first founded about 1700.

Within three or four seasons Messrs Vyner and

Tyrwhitt retired, leaving Mr Pelham in sole command, the family of which have hunted the Brocklesby ever since. The hounds of this pack have a written pedigree for about 140 years, and that Father of English fox-hunting, Mr Hugo Meynell, the first Master of the Quorn Country, obtained the foundation stone, so to speak, from this source, for the formation of the Quorn pack—reputed to be one of the first packs of Foxhounds in England,* Mr Boothby being the Master from 1698 to 1753 (55 years), followed by the Mastership of Mr Hugo Meynell from 1753 to 1800 (47 years).

With the last named the breeding of Foxhounds upon scientific principles may be said to have begun. From that time (*circa* 1755 or 1760) onwards packs of hounds sprang up in various parts of the country. Colonel Thornton (*circa* 1804) is reputed to have had a fine pack of Foxhounds, which subsequently came into the hands of the sixth Lord Middleton.

The foregoing is sufficient evidence to prove that for fully 200 years the Foxhound has been exclusively employed for hunting the fox, and that it has attained its present high standard of excellence through being bred upon scientific lines for generations, in short, since the days of the great Hugo Meynell.

* The Berkley (Lord Fitzhardinge's) is probably the most ancient hunt in Great Britain, dating its foundation from 1613.

Although not endowed with conformation characteristic of animals required for swift progression like the Thoroughbred, the Greyhound, Deerhound, etc., the Foxhound nevertheless is built upon lines that suggest *speed combined with endurance*. Without these qualifications it would be utterly useless for the purpose for which it is required. This brings the author to make a statement that very few will, on reflection, feel inclined to dispute the truth of. It is this: *that the Foxhound is built upon lines displaying greater economy of material than that of any other variety of dog*. Every ounce of bone and muscle is placed where it can be utilized to the best advantage. The comparatively small size of the head and its lofty carriage, the obliquity of the neck, the extreme capacity of the chest passing into a light flank area, and on to powerful loins and quarters and strong hocks, so combine by being thus placed in relation to the body as to give a *maximum of speed combined with a maximum of endurance*.

The fore-limbs of the Foxhound, for bone, muscle and tendon, offer a study in conformation and of relation in *application to purpose*. The prolonged exertion that Foxhounds have usually to perform necessitates a high degree of staying power, and this implies a stoutly-developed muscular system without interference to speed.

Just in the same way that the late Mr Robert Bake-

well improved the breed of Leicester sheep, in order to get the greatest degree of economy of material, so have Masters of Hounds endeavoured to breed *only* from such members of their own packs, or their union with selected sires of other packs, as would be likely to afford a measure of improvement, or, at any rate, equality of the hounds then in their kennels. In other language, "selection" has been the basis for the attainment of an object, and this is the reason why the present type of Foxhounds in England stands unrivalled.

The Harrier stands next to the Foxhound so far as general conformation is concerned, but the question is, What constitutes a Harrier? To say that it is a hound used exclusively for hunting the hare is correct, yet this does not dispose of the question so often raised and referred to by us at the beginning of this paragraph.

Necessarily all Harriers are mainly composed of the Foxhound element, but in a modified form, and many packs of Harriers contain inferior specimens of Foxhounds simply glorifying under another title.

There is a tendency for Harriers to degenerate unless the Foxhound sire is occasionally reintroduced to maintain the robust build so essential in the Harrier, one of whose principal qualifications is "perseverance," as hare-hunting does not call for the exercise of one continued "farrard on," as with the

Foxhound. Most hare hunters like a hound about 20 inches in height, though opinions differ, some packs being composed of 21 to 22 inch hounds, others smaller. Twenty inches may be taken as the average.

Otter-hounds are certainly strongly endowed with the Harrier or Foxhound element, blended with a jacket specially suitable for riverside work, pools, etc., which represent the homes of their quarry.

The Southern hound carriage of stern is typically portrayed in all the foregoing, likewise in the Bloodhound, and in a modified form in Dachshunds, Bassets and Beagles, although the first named must, doubtfully, be classified as a hound. The shortening of the limbs in these hounds is peculiar, and cannot be held as anything but a retrograde movement from the original type, although custom has sanctioned the short crooked fore limbs as orthodox, which are said to render the Dachshund specially valuable for working in a fox earth or badger burrow.

In length of body, carriage of stern, length and conformation of fore and hind limbs, shape of skull and face and carriage of ears, all the hounds last named exhibit a remarkable conformity of type. The Dachshunds and Bassets exist in both the smooth and broken-coated varieties, although the smooth coat has always taken precedence amongst fanciers of these hounds.

The Bloodhound in general conformation is allied

to that of the Southern hound, but of a very much heavier type, yet having features so distinctive that further consideration concerning him must be left until the breed is discussed.

The three remaining types of British hounds, viz., the Greyhound, the Deerhound and the Wolfhound, or hounds of the Rose, Shamrock and Thistle, together with those hounds of Continental or of Asiatic descent, exhibit remarkable likenesses in their structural conformation, differentiated in accordance with the special nature of their work.

All these hounds are built upon racing lines, portraying swift progression, to which other features are secondary, unless it be great strength for attack, as requisite in the Borzoi when employed in his native country.

Both the Deerhound and the Wolfhound are stronger in build than the Greyhound, though for pace over a short distance not equal to the last named.

One of the hound characteristics is that of hunting by sense of smell, though the Greyhound chiefly hunts by sight, the vision of these animals being adjusted to cover an extremely long range, the eyes being large and particularly brilliant.

The presence of feather (*i.e.*, a fringe of hair) upon the backs of the limbs and upon the tail of the Eastern hounds, *e.g.*, the Russian Greyhound (Bor-

zoi), and upon the Elk hound, is singular and can hardly be accounted for as the remnant of ancestry, because it is probable that all these hounds have been derived indirectly from that most ancient of all canines—at any rate such as have been domesticated—the Greyhound. Environment may have something to do with its presence, as its only use, so far as one can judge, is that of protecting the backs of the fore limbs and under surface of the tail from becoming too much wetted. The skin would be liable to become erythematous (congested), when the dog lay down to rest in its natural attitude, through the heat, moisture and pressure upon these parts. The climate of Great Britain does not call for such protection, whereas it does in the land where these hounds are native.

Although brief, as a general survey of the hounds, it is hoped that even this small amount of information may stimulate the mind to further thought relating to the *comparative external general features* of the various types of hounds.

Hounds

CHAPTER I

POINTS OF A HOUND

Introductory Remarks.—Although apparently a very simple matter to become acquainted with different regions, recognized for convenience under the title of “points,” it is astonishing to find so few really acquainted with such, and when one refers to some particular part, such as the arm or the wrist, the novitiate seems quite at sea as to the part of the anatomy implied. To tell a man that a dog has really only two legs (admittedly four limbs) creates amusement, but such is actually the case.

In the description of hounds the “points” must not be taken as those indicative of conformation, this being discussed elsewhere in the book.

Fig. 1 is the nostrils, which ought to be large in all hounds. The nostrils are divided into right and left passages by a cartilaginous membrane—the Schneiderian membrane.

Fig. 2. The lips, usually well developed in most hounds.

Fig. 3. The cheeks, particularly large in hounds, excepting the Greyhound, Deerhound, etc. The Bloodhound affords a typical representation of such development. Also spoken of as the "flews."

Fig. 4 is the nose, extending from the nostrils to a line drawn across the level of the eyes, and about an inch and a half on either side, blending with the face.

Fig. 5 is placed upon the skull, which runs from the upper boundary of the nose to Fig. 6 at the back of the skull, and known as the occiput or occipital peak.

Fig. 6. The face, which is included within the area formed by the inner angle of the eye, and the dotted lines.

Fig. 7. The temples.

Fig. 8. The upper maxillar.

Fig. 9. Margin of ear.

Fig. 10. Base of ear.

Fig. 11. Posterior angle of jaw.

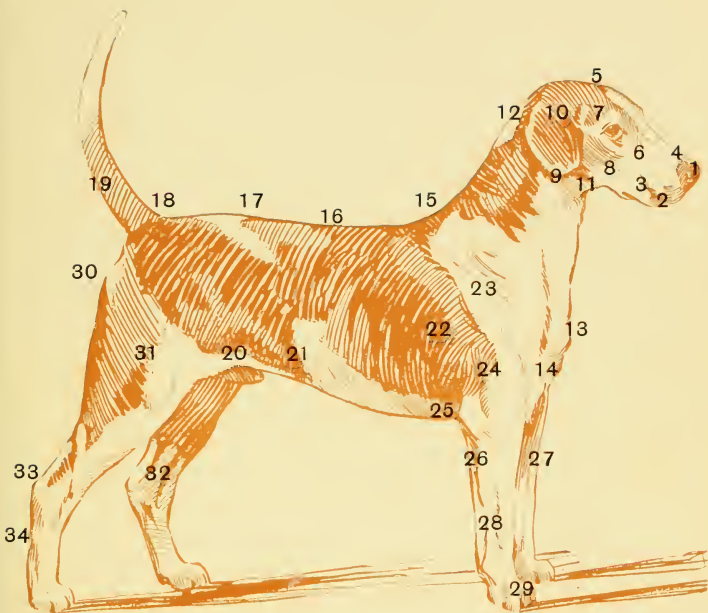
Fig. 12. The crest of the neck.

Fig. 13. The dewlap.

Fig. 14 is placed upon the brisket, which in hounds should not be wide.

Fig. 15. The withers; 16, the back; and 17, the loins.

Fig. 18. The coup; and 19, the stern.



Points of a Foxhound

1. Nostril. 2. Lips. 3. Cheek. 4. Nose. 5. Top of Skull. 6. Face. 7. Temples.
 8. Upper Maxilla. 9. Margin of Ear. 10. Base of Ear. 11. Posterior Angle of
 Jaw. 12. Crest. 13. Dewlap. 14. Brisket. 15. Withers. 16. Back. 17. Loins.
 18. Croup. 19. Stern. 20. Flank. 21. Belly. 22. Chest Wall. 23. Shoulder.
 24. Arm. 25. Point of Elbow. 26. Forearm. 27. Inner Face of Forearm.
 28. Waist. 29. Toes. 30. Buttocks. 31. Stifle. 32. Second Thigh. 33. Point
 of Hock. 34. Metatarsus (or Pastern).

HOUNDS]

[To face page 22.

Fig. 20 is the flank; and 21, the belly.

Fig. 22. The chest wall, the depth of the chest being measured immediately behind the elbows, around the breast, and over the withers, great depth of chest being a *sine qua non* in all hounds.

Fig. 23. The shoulder, divisible into (a) the upper border; (b) posterior border; and (c) the point of the shoulder.

Fig. 24 is the arm, joining the lower angle of the shoulder above and the upper end of the forearm.

Fig. 25 represents the point of the elbow.

Fig. 26. The forearm, divisible into (a) upper, (b) middle, and (c) lower thirds, as indicated by the lines.

Fig. 27. (d) The inner face of forearm; (e) the outer; (f) the front; and (g) the posterior faces of forearm.

Fig. 28. The wrist or knee joint, uniting with the lower end of the forearm above and bones of the hand, excluding those representing the fingers (toes) below.

Fig. 29. The toes.

Fig. 30. The nails. *Buttocks*

Fig. 31. Front face of the first thigh (represented in the human subject from the hip to the knee). *Style*

Fig. 32. Buttocks, or posterior face of the first thigh.

Fig. 33. The stifle, which represents the lower end of the first thigh. *a point of hock.*

Fig. 34. The second thigh, extending from the stifle joint last named right down to the hock, only it is usual to speak of the *lower third* of this as the gaskin, No. 35 in the illustration.

Fig. 35. Point of the hock or heel, together with (a) the front face of the hock, and (b) and (c) its inner and outer faces.

Fig. 36. Is the metatarsus or pastern, ending on to toes, 38.

CHAPTER II

ELEMENTARY ANATOMY OF A HOUND

“ True knowledge comes from study, not by chance,
As those move easiest who have learned to dance.”—POPE.

Introductory.—Granting the truth of that oft-repeated axiom “ that a little knowledge is a dangerous thing,” it nevertheless is essential for all who wish to acquire a sound knowledge appertaining to hounds to digest the elements relating to the anatomical construction of a hound, without the acquirement of which an imperfect state of knowledge is bound to be the result. So far as the anatomy of a hound is concerned, this coincides, with certain modifications, to the anatomy of any other dog, and for convenience may be studied under three divisions, viz.: (a) The structure of the skeleton or bony framework of the animal; (b) its internal organs; and (c) ‘the muscular system.

The terms *osteology*, *i.e.*, the study of the bones, and *myology*, *i.e.*, the study of the muscles, are generally used by anatomists as expressive of the studies indicated, whilst a somewhat long term—*splanchnology*—is applied to the study of the internal organs. Dealing with these in the order named, I

shall first of all give a detailed account of the skeleton.

The Skeleton of the Hound

This is spoken of as an endoskeleton because the flesh (muscles) are situated externally to it. The framework encloses the soft internal organs, whilst it serves to support—at the same time is protected by—the muscles, thus acting as a framework upon which leverage power and movement are executed. If the skeleton be divided in its mesial plane, *i.e.*, down the backbone, the right and left halves will be counterparts, so that it is only necessary to speak of the parts in the singular number, thus saving much useless verbiage.

The skull is composed of numerous small bones united together in later life by bony union, but during foetal existence, and, to some extent, weeks after such, the union is by means of cartilage or gristle. Hence there is practically no movement executed between the individual bones entering into the formation of the skull.

Most of these cranial bones have their opposing surfaces cut out like the teeth of a fine saw, and it is this interlocking or dovetailing that serves to strengthen the bond of union.

The right and left sides of the forehead meet at a prominent ridge known as the *sagittal crest*.

The “poll” or top part of the skull is formed of

the *occipital bone*, and the part generally referred to as the *occiput*. Before birth a small bone—the *inter-parietal*—fuses with the bone previously named. On a level with the ears, and helping to form a considerable portion of the skull, are the *parietal bones*, whilst between these and the eyes are situated the *frontal bones*, and there is a projection from each of the frontal bones that helps to form the sockets for the eyes, the eye cavities not being completely bony like those of the horse. Immediately behind the *parietal bones*, though with a bony process projecting forwards and outwards, are the *temporal bones*, which, along with the bones previously named, form what is known as the *temporal fossæ*—depressions that are filled up with muscles (flesh) not observed in the fleshy state of the skull.

The *superior maxillary bone* carries the six back teeth, and at its junction with the *premaxilla* forms a socket to accommodate each tusk.

The *lachrymal bone* is small and situated in the eye cavity, whilst the *molar bone* helps to form a portion of the face. The *premaxillary bone* (like the rest in pairs), along with the *nasal bones* and superior maxillary bones, forms the bony tunnel of the nose, and each half of the premaxilla carries three of the upper incisor teeth. In addition to the foregoing there is a narrow bone known as the *vomer*; also *turbinated bones* in the nasal passage; whilst the lower jaw or *in-*

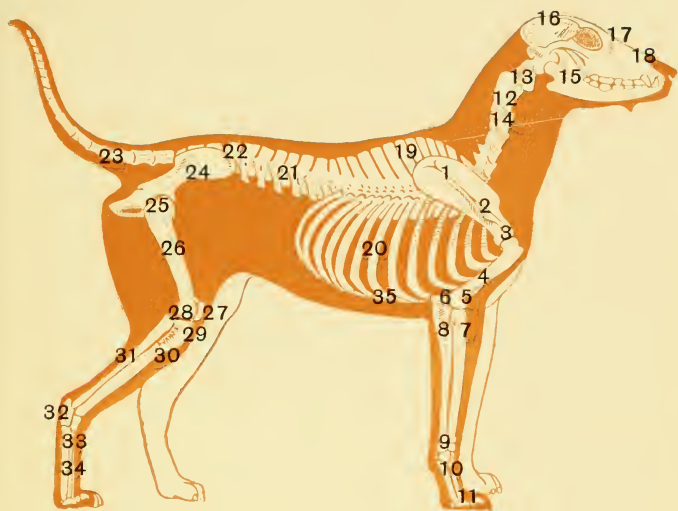
ferior maxilla, which is very strong, bears seven teeth along its upper border and four at the front.

At the back and outer side of the jaw there is a deep depression to lodge the cheek muscle, and above this a large projecting process—*coronoid process*.

The neck (cervix) is composed of *seven cervical vertebræ*, and the body of each vertebra in such hounds as the Greyhound, Deerhound, etc., is relatively long, but the first, *atlas*, and the second, *axis*, are quite different from the succeeding five. In front the atlas articulates with the back of the skull, and it is at this joint (occipito-atlantal) that the nodding movement occurs, whereas the joint formed by the back articular surface of this bone and the front of the *axis* confers lateral motion to the head. This is called the *atlanto-axial articulation*. Following the bones composing the neck are the *dorsal vertebræ*, numbering thirteen, the last of which articulates with the first bone of the loins or *lumbar vertebræ*. These bones are well developed. Strength in this region, especially in hounds, is absolutely essential; in fact, a weak-loined hound is no use for work.

Their lateral or *transverse* processes (projections) are strong. The *sacrum* follows the lumbar vertebræ and is composed of three segments united together.

This completes the bones of the spinal column. The remaining ones, belonging to the tail, are known as *coccygeal vertebræ*.



Skeleton Structure of Hound

1. The Scapula or Shoulder Blade. 2. The Spine of Same. 3. Shoulder Joint. 4. Humerus or Arm. 5. Elbow Joint. 6. Point of Elbow. 7. Radius or Forearm. 8. Ulna. 9. Bones of Wrist. 10. Metacarpal Bones. 11. Phalanges or Bones of Toes. 12. Axis or Second Cervical Vertebrae. 13. Atlas or First Cervical Vertebrae. 14. Remaining Five Cervical Vertebrae. 15. Lower Jaw. 16. Cranium. 17. Nose. 18. Upper Canine Tooth. 19. The Thirteen Dorsal Vertebrae. 20. The Thirteen Pairs of Ribs. 21. The Seven Lumbar Vertebrae. 22. The Three Sacral Vertebrae. 23. Coccygeal Vertebrae. 24. Pelvis. 25. Hip Joint. 26. Femur or First Thigh Bone. 27. Patella. 28. Lower End of First Thigh Bone. 29. Stifle Joint. 30. Tibia or Second Thigh. 31. Fibula. 32. Os calcis or Point of Hock. 33. Tarsal or Bones of Hock. 34. Metatarsal Bones. 35. Sternum or Breast Bone

HOUNDS]

[To face page 28.

The Thorax

The dog has *thirteen pairs* of ribs, eight of these being spoken of as true ribs, and five false. The *sternum* forms the floor of the chest and consists of eight pieces or *sternebræ*.

The Fore Limb

Sometimes a very small bone is embedded in the flesh on the front part of the shoulder; if so, this represents the *clavicle* or *collar-bone* present in man.

As the bones of the fore limbs in hounds are very often injured the reader should make himself thoroughly acquainted with the bones entering into their formation.

First of all there is the *scapula* or *shoulder-blade*, which has inner and outer surfaces. The outer surface is divided by a bony spine, running lengthwise of the bone, and ending below in a small bony process. In most other animals the top border of the shoulder-blade has its area prolonged upwards by cartilage or gristle, but this is absent in the dog. The *inner* surface is roughened and depressed so as to accommodate muscle. This is called the subscapular fossa. The lower end of the shoulder-blade articulates with the upper end of the bone below it, viz., the *humerus* or *arm*, and in all the tall hounds this bone is long, but it occupies a somewhat sheltered position, passing obliquely downwards and backwards from the

point of the shoulder to the elbow. This bone is somewhat spiral in shape, having a groove—the musculo-spiral groove—running throughout the length of the bone, the lower end of which joins the bones of the *forearm* at the elbow. Now the *forearm* is really composed of two long bones called the *radius* and *ulna*, the former being situated in front of the latter, though only loosely attached to one another throughout their length by interosseous tissue. The *radius* and *ulna* attain their *maximum* length in the Greyhound and Deerhound, and their *minimum* in the Bassets and Dachshunds.

The *ulna* extends from the point of the elbow to the wrist or knee-joint at the back of the limb, and the *radius* practically the same distance in front. The bone last named articulates with the *ulna*, with the humerus or arm bone, and with one of the bones of the knee-joint below.

The *carpus*, *wrist or knee-joint* has seven small bones in it arranged in two rows, viz., four in the lower and three in the upper.

Those in the *upper row* are (from inside limb):

1. The Scapho-lunar.
2. The Cuneiform.
3. Pisiform.

In the lower row:

Trapezium.
Trapezoid.
Os magnum.
Unciform.

These bones articulate amongst themselves, and some of them with the ulna, and also the metacarpal bones. Extending from the wrist to what corresponds to the knuckles in man are the *five metacarpal bones*, of which the third and fourth are the longest, and the innermost or first the shortest, just as in the case of the human hand, to which the dog's hand corresponds. Each of these metacarpal bones has the form of a slender rod, the fifth or outermost being the thickest.

They all articulate amongst themselves just below the bones of the wrist, and each has two very tiny bones—the *sesamoids*—placed at the back of the lower end just where the bones articulate with the fingers (*digits*).

Now there are *five fingers*, and that representing the human thumb, *i.e.*, the innermost, does not touch the ground. Each of the four fingers is composed of three small rods of bone—*phalanges*—the middle ones being the longest.

This completes the description of the bones of the fore limb, and all that it is needful to add is that the metacarpus corresponds to the canon of the horse and ox, represented in the latter animals by one large bone and two small (splint bones) bones at the back of it, the other two metacarpals being suppressed.

It is the canon bone only in the horse that bears a digit, and this corresponds to the middle finger in

man. This single digit in the horse comprises the pastern bones and the coffin bone plus the hoof (nail).

The Hind Limb

Unlike the fore limb, the hind limb is articulated to the skeleton of the trunk through the medium of the *basin bone* or *pelvis*—os innominatum—each half of which is really composed of three separate bones, though these are fused.

The names of these are the *ilium*, *ischium* and *pubis*. The pelvis is a most significant part of the skeleton, not only forming a fixed point for the spinal column, but also for the leverage power of the hind limbs.

It is convenient to speak of the pelvis as a bony arch with an inlet and outlet, assisting in the protection of delicate internal organs belonging to the urinary and generative systems.

In bitches the transverse diameter of the pelvis is slightly greater than in the male.

The *hip-joint* is formed by the articular head of the *femur* or first thigh bone and the cap-like cavity on the outer side of the pelvis. This is a ball-and-socket joint. This joint is an extremely *strong* one, and seldom the seat of injury. The first thigh extends from the hip-joint to the stifle in a *downward* and *forward* direction. The *femur* is a fairly strong bone and the shaft rounded. It is relatively long in the Greyhound, Deerhound and Wolfhound, and the neck of

the bone is plainly marked. The lower end of the femur articulates with two bones, viz., the *patella* or *knee cap*, and the *tibia* or second thigh.

In Greyhounds the second thigh bone attains its maximum length, extending—in a *downward* and *backward* direction—from the stifle joint to the tarsus or hock. The patella is a small bone attached by ligaments only. Upon the great length of the bone mainly depends the forward stride, so that a long second thigh, if well muscled, points to speed.

In looking at the skeleton of a dog it is somewhat singular to note that the *direction* of the scapula (shoulder blade) corresponds to that taken by the first thigh bone and the humerus to that of the second thigh, whilst the angles formed by these joints are much more acute in the hind limb.

There is another slender rod of bone running along the side of the *tibia* (second thigh bone), known as the *fibula*, which in its upper half is not in contact with the *tibia*, but it is below in fact united to the last named by small fibres.

The lower end of both the *tibia* and *fibula* articulates with the bones of the hock joint, of which there are seven, as follows:

Os calcis or heel.

Astragalus.

Scaphoid.

Inner, outer and middle Cuneiform bones.

Cuboid bone.

Three are in the upper and four in the lower row. Following the hock joint or *tarsus* (*i.e.*, the human ankle) are the five *metatarsal* bones, the inner or fifth one being very rudimentary, and this corresponds to the human big toe. *Four of the metatarsal* bones carry digits (toes) corresponding to the four toes in man. Sometimes the innermost is completely absent, but in every instance it is much smaller than the other four. This completes our description of the skeleton of the dog.

CHAPTER III

ELEMENTARY ANATOMY OF A HOUND (*continued*)

The Internal Organs

(a) *Respiratory Apparatus*.—Full development of the respiratory apparatus is a *sine qua non* in all hounds required to work, which demands also a sound heart.

The respiratory apparatus begins at the nostrils and ends with the lungs, the last named being for the purpose of purifying the blood after it has circulated through the body.

There is a right and left nostril divided by a cartilaginous partition—*septum nasi*; and it is through these and the mouth that air passes into the lungs, via the *larynx* and trachea (windpipe), and its division and subdivision into the *bronchial* tubes.

The lungs are divided into right and left, with the heart lying between them. They occupy nearly the whole of the chest or *thoracic cavity*, and are separated from the contents of the belly cavity by a *muscular* partition known as the *diaphragm* or *midriff*, which is one of the principal muscles connected with the respiratory movements.

The cavity of the chest is lined by a delicate serous membrane, which is reflected over the surface of the lungs and midriff. This is the pleural membrane, and its use is to enable free gliding movements of the lungs, its surface always being slightly moistened for this purpose.

In appearance the lungs are soft spongy organs, pale red in colour and divided into several lobes on the right and left side. Microscopic examination shows the lungs to be composed of numberless minute air-sacs or spaces—the alveoli—each space being surrounded by a plexus of fine blood-vessels — the capillaries — which bring the blood in contact with the air (oxygen) within the air-cells.

The respiratory act is divisible into two portions, viz., *inspiration* and *expiration*, or the taking in of air and giving it out.

Air ought to enter the lungs uncontaminated, but this cannot be the case in an atmosphere polluted with offensive products, such as a kennel where the excretions are allowed to remain too long, undergoing decomposition. Free ventilation of the kennel is indispensable.

The number of respirations per minute varies greatly, exercise, heat, etc., all influencing the respiratory movements. Unlike the horse, the dog breathes largely through its mouth, as evidenced

during hot weather, and this enables it to keep the bodily temperature at its normal standard.

Continuing the description of the respiratory organs, we may say that the *larynx* guards the entrance to the windpipe or trachea, as the *glottis*, *i.e.*, the opening into the larynx, is closed during the act of swallowing by a lid-like structure called the *epiglottis*. When a foreign particle gains entry to the larynx the act of coughing is excited in order to dislodge it from its injurious situation. The trachea is composed of a number of cartilaginous rings united to form a tube, elastic and resistant, the course of which is in front of the gullet, and quite superficial, especially in its upper portions, but dividing at the entrance to the chest into the right and left bronchial tubes, which again divide and subdivide. The larynx is the organ of voice, and barking, with its varied modifications, all originate in this organ. Lymphatic glands (absorbents), the thyroid gland, and thymus (in pup) are additional structures associated with the respiratory organs.

The thorax or chest cavity has its side walls formed by the ribs and the intervening *intercostal muscles*, the latter contracting and relaxing with each complete respiration.

The floor of the chest is mainly formed of the *sternum*; the base of the former is represented by the midriff, and the front of the chest by the brisket.

As the lungs closely invest the heart extraneous applications ought always to be applied to the front of the breast in addition to the chest walls.

(b) *Circulatory Apparatus and Circulation of Blood*.—Apart from the lungs, the circulatory apparatus comprises the heart, the arteries, veins and capillaries.

The heart is a hollow, muscular organ constantly contracting and relaxing from birth until death, and this with rhythmical precision, distributing pure blood throughout the body and receiving back impure blood, for distribution to the lungs, to here undergo purification or oxidation.

The heart of the dog varies in its size and weight in accordance with the variety of dog, being particularly well developed in Foxhounds.

It is enclosed within a membranous sac, known as the *pericardium*, which consists of two layers, an outer fibrous one and an inner serous one.

The heart is suspended about the middle of the chest by the large vessels and connective tissue of the *mediastinum*, the middle of which it occupies.

The muscular fibres composing the heart are short and have, in addition to transverse stripes, generally small fat granules in the axis of the fibres. Transverse stripes are characteristic of voluntary (*i.e.*, under the control of the will) muscular fibres, though the heart is of course *involuntary*, although

one or two exceptions to this have been known in man, when power to inhibit or control this vital organ has been demonstrated. Perhaps one of the most significant features of the minute muscular fibres composing the heart is the junction of one fibre with another, whilst the fibres of the upper and lower compartments are separated from each other.

The *heart has four compartments*, viz., a right and left *auricle* above and a right and left *ventricle* below, with valves for regulating the flow of blood to and from these compartments. The auricles or upper *compartments* help to form the base of the heart, whilst its *apex*—directed in a downward and backward direction—is formed by the muscular substance of the heart, the left ventricle extending down to the apex. The wall of this compartment is much thicker than that of the right side, because when it contracts it has to send the stream of blood (*per* a blood-vessel coming from it and called the *aorta*) throughout the system—the *systemic circulation*, as opposed to the lesser or *pulmonary circulation*, propelled to the lungs by the *right ventricle*, through the *pulmonary artery* (carrying impure blood—an exception to arteries). The valve guarding the opening between the auricle and ventricle on the left side has two cords of attachment, hence it is called the *bicuspid valve*, whilst that on the right side has three cords of attachment.

This is the *tricuspid valve*. The *cusps* or flaps

so adjust themselves at the moment of contraction and dilatation of the compartments that one part is completely shut off from the other.

Disease of the valves gives rise to various abnormal conditions. They are composed of fibrous tissue. Any interference with the working power of the heart necessarily gives rise to serious conditions of health, and if a hound has not a sound heart it will never be able to give a satisfactory account of itself in the field. The interior of the heart is lined by a delicate membrane called the *endocardium*, similar to that lining the blood-vessels.

The *large blood-vessels at the heart have small valves* at their entrance, regulating the flow of blood, just in the same way as the bicuspid and tricuspid act.

With reference to the circulation of blood, it may be said that blood passes into the *left auricle* by the pulmonary veins; the auricle then contracts and forces the blood into the lower compartment or *left ventricle*, which in its turn contracts and sends the blood into the *aorta*—the largest blood-vessel in the body, corresponding to the trunk of a tree.

In response to this afflux of blood in the arteries throughout the body, the walls of these vessels expand synchronously with the contraction of the left ventricle, and it is these *undulations in the walls of the arteries that constitute the pulse*, which in the dog averages 80 to 90 per minute.

The nearer the blood-vessels approach the heart the larger they become, the smallest being those most remote. After passing through the body the impure (purple) blood is returned to the heart by the veins, these uniting to form two main trunks, the *anterior* and *posterior venæ cavæ*, which pour their blood into the *right auricle*, and this now contracts so as to squeeze the blood (still impure) into the *right ventricle*, the contraction of which forces the blood into the *pulmonary artery*, whose origin is at the base of the *right ventricle*. It (the blood) now passes through the lungs for purification by contact with the oxygen taken in during inspiration, and then returns by the *pulmonary veins* (carrying arterial or bright scarlet (pure) blood) to the left auricle—the point from which we started.

Arteries convey blood from the heart, whereas veins convey it towards the heart.

The *capillaries* are networks of small blood-vessels interposed between arteries and veins, forming a breakwater system as it were. Most of the veins have valves to prevent regurgitation of blood, though the latter does occur in certain diseased states.

At the beginning of this paragraph two circulations of the blood have been referred to, viz., the *systemic or greater* and the *pulmonary or the less*. It is important to bear this in mind, though the two are

inseparable in the strict sense. There is, however, a third circulation known as the *portal*, in other words, a *liver circulation of blood*. After the blood has circulated through the bowels, stomach, pancreas, spleen, etc., it passes into the *portal vein*, which runs into the liver, subsequently dividing into *capillaries* in this organ, the cells of which are thus enabled to store up a substance called *glycogen* or *animal starch*.

Veins convey the blood (hepatic veins) into the *inferior vena cava*, and this in its turn pours it into the right auricle, for subsequent purification in the lungs.

A *fourth* blood circulation is often spoken of. This is the *renal* or *kidney circulation of blood*.

So far no reference has been made to either the structure of the blood-vessels nor yet the composition of the blood. For convenience arteries are divided into three kinds, viz., *small*, *medium* and *large*, differing somewhat in their structure. In the larger arteries one of the most significant features is the presence of a *very thick middle coat*. *All arteries have three coats*, viz., an inner, middle and outer.

The *inner coat* is chiefly composed of cells, irregular in their outline, and known as the endothelium, which rests upon a basement membrane.

The *middle coat* contains both elastic and muscle fibres, arranged circularly and longitudinally.

The *outer coat* consists of connective tissue and elastic fibres. In the largest arteries, *e.g.*, the aorta,

the middle coat is very thick, which is necessary to withstand the blood-pressure.

Some arteries and veins have nerves, others not.

The veins are similar in structure to the arteries, though with certain modifications.

The *blood* consists of two portions, viz., a solid portion and a liquid one.

The *blood globules* or corpuscles represent the first named, and the *liquor sanguinis* the latter. When in the blood-vessels (during life) the blood never coagulates unless a "clot" forms in a blood-vessel as the result of disease, but such coagulation is confined to one part of the blood-vessel and never general.

Outside the body the blood coagulates through solidification of the fibrin which is dissolved in the plasma. This fibrin contracts subsequently, and causes the blood to divide into two portions, viz., the *clot* and the *serum*. The clot is red, but the serum of a pale colour.

The blood globules are of two kinds, viz., *coloured* and *colourless*. It is the former that contain the red-colouring matter of the blood and act as carriers of oxygen. These corpuscles circulate towards the centre of the blood-stream, whereas the colourless ones occupy a position nearer to the wall of the vessel, during circulation.

The blood cells are very minute, consequently

only distinguishable with the aid of a microscope. There are other elements in the blood in addition to the foregoing, but these are not of sufficient interest to anyone, excepting those engaged in professional work, to enumerate herein.

(c) *Absorbent Vessels and Glands (Lymphatic System).*—Throughout the body there is a system of vessels (and glands) which convey a fluid known as lymph, or chyle, which is taken up by these vessels as a balance remaining unused by the blood. Two main trunks carry the lymph into a large vein at the base of the neck. The thoracic duct is the main lymphatic vessel, and the smaller ones communicate with it. It begins under the loins and ends at the base of the neck in a large vein as previously stated. The lymphatic glands are very numerous throughout the body, some being situated internally, others quite superficially.

These glands are largely concerned with the formation of the colourless blood globules, and readily arrest disease-producing germs, hence the reason why these structures are nearly always early affected in such maladies as tuberculosis, distemper, etc.

The lymph is *aided* in its circulation by the muscular movements of the body.

(d) *The Digestive Apparatus and Accessory Glands.*—The digestive track really begins at the mouth

and ends with the anus, but some modifying statements are requisite in order to guard against error in estimating the subordinate functions performed by certain portions of the alimentary canal. *Preparation, disintegration, assimilation and expulsion* are the functions performed by the alimentary apparatus. All nutritious materials from food, etc., must be extracted, and the waste or useless products cast out of the economy, chiefly by the bowels, so far as solids are concerned.

The mouth, teeth, gullet, stomach, intestine, liver, pancreas and salivary glands are all concerned with digestive functions. The incisor and canine teeth are used for prehending and tearing the food, whilst the molars are for reducing it to the condition of being swallowed.

The food is moistened in the mouth by the saliva, though the action of this in dogs is only momentary, knowing how quickly these animals swallow their food. There are *three principal salivary glands* on each half of the head, viz., the *parotid*, which lies just beneath the ear at the back of the upper jaw; the *submaxillary* gland, beneath the lower jaw; and the *sublingual* salivary gland, lying beneath the tongue.

The tongue is composed of muscle and its surface studded with papillæ. It is maintained in position chiefly by means of the *hyoid bone*.

The *pharynx* forms the entrance to the *æso-phagus* or *gullet*, and is situated above and at the back of the larynx. It is continued as the gullet down the neck behind the windpipe, then through the chest compartment above the heart, passing through the midriff into the stomach, its entrance into which is funnel-shaped.

This end of the stomach is spoken of as the *cardiac* (meaning nearest to heart) portion in contradistinction to the opposite portion of the stomach—the *pyloric* end.

The gullet is composed of muscular fibres in addition to other tissues, but the swallowing of food is chiefly due to the contraction of these muscular fibres, excited to action by the bolus of food. The gullet has really four layers of tissue entering into its structure, viz.: (a) An *epithelial lining and mucous membrane*; (b) a *submucous coat* containing blood-vessels and glands; (c) a *muscular coat*; (d) an *outer sheath of fibrous tissues*, which help to keep the tube in its position.

The length of this tube varies according to the length of neck, attaining its maximum of length in the Greyhound and Deerhound. The *stomach* lies just behind the liver, and is somewhat round in shape, having a capacity in the adult hound of three pints. Externally this organ is covered by a *serous membrane*, the *peritoneum*, which also covers

the bowels, lines the belly cavity, and is reflected over other organs contained therein and in the backward prolongation of the latter, *i.e.*, the *pelvic cavity*.

The stomach serves as a receptacle for food, to secrete the gastric juice and to prepare the food for intestinal digestion. The indigestible substances (bones, etc.) consumed by carnivora render it necessary to have a free acid secretion in the stomach and that this acid shall have a prolonged action; consequently we find that in the dog both conditions are present. The acid secreted by the gastric glands is *hydrochloric*, but there is also mucous secreting glands situated in different portions of the lining membrane—mucous membrane—which is thick and of a reddish or brown colour nearest to the gullet, but lighter towards the pyloric or intestinal end.

During digestion the mucous membrane is bright red. In addition to the mucous lining there is a *muscular coat*, the fibres of which are arranged in two directions, and on the outside of this a *serous coat*.

The contraction of the muscular fibres of the wall of the stomach aids the expulsion of the food into the intestine.

The outlet of the stomach has its opening guarded by circular muscular fibres, forming what is called the *pyloric sphincter*, which opens into the beginning of the intestine, the first few inches of which being known as the *duodenum*, and in this portion of the

intestinal lining there are minute glands—Brunner's glands—whereas throughout other portions of the gut Lieberkühn's glands exist, in addition to patches of lymphoid tissue—Peyer's patches and other glands, all secreting fluids that play an important part in the normal functions of the intestine.

Opening into the duodenum or first portion of the bowel are two ducts (minute tubes), viz., one coming from the gall bladder and the other from the pancreas or sweetbread, pouring into the intestine *pancreatic* juice in the one instance and bile in the other. Now both these liquids play a most important part in intestinal digestion.

The pancreatic juice saponifies fatty food, whilst the bile prevents intestinal putrefaction and aids the outward expulsion of fæculent matter, along with other functions. The *small intestine* is really divisible into three portions, viz.:

The Duodenum.

The Jejunum.

The Ileum.

Both the last named run in a convoluted manner from the duodenum to the *blind gut* or *cæcum*, i.e., the commencement of the large intestine. It occupies a position beneath the spine and in the right side of the belly cavity.

Following the cæcum is the *colon*, which runs into the *straight gut* or *rectum*, whilst the last named ends

at the anus, which is encircled by muscle fibres forming a sphincter, internally and externally—the sphincter ani internus and externus. The *rectum* is short, though nevertheless a common seat of disease.

The stomach and small intestine are more concerned with digestion than the large bowel, and food remains many hours in the former.

Strictly speaking, *digestion* begins at the mouth and ends at the rectum.

The Pancreatic Gland.—This organ is of a pale pink colour and commonly known as the *sweetbread*. It is six or seven inches in length and placed between the stomach, beginning of the small intestine, liver, and large intestine, on the right and left of these organs.

As previously stated, it secretes the pancreatic fluid, and pours this into the beginning of the small bowel (duodenum) for digestive purposes.

It is a colourless viscid liquid very much akin to that of saliva and has about 90 % of water in it. It converts the starchy food into sugar, and also acts upon the fats. The functions of the bile have already been referred to. The organ last named, *i.e.*, the *liver*, consists of six lobes, and is placed immediately behind the diaphragm or midriff, though in front of the stomach. Its normal colour is a chocolate-red, and it is maintained in its proper place by ligaments,

which are reflections of its capsular covering—Glisson's capsule. At the back of the liver the blood-vessels, etc., pass into the organ. It is composed of minute cells and delicate connective tissue. The spleen or milt is situated on the left side of the stomach, and is attached to this organ. Its functions are imperfectly understood, but there is no doubt that it is concerned with the formation of the blood corpuscles. It has a capsular covering; its edges are rounded and have a bluish-red appearance. It is flattened and tongue-shaped.

(e) *The Urinary Apparatus.* — The urinary apparatus comprises the *right* and *left kidney* and the *ureters* coming from each kidney and opening into the *bladder*, or reservoir for the storage of the urine; and the *urethra*, or tube serving to conduct the urine from the neck of the bladder to the exterior of the body.

The *kidneys* are situated beneath the loins, the right one being a little in advance of the left, and their function is that of separating the urine from the blood.

Each kidney has a delicate capsular investment, which also assists in fixing the organs in position. The point of attachment is known as the *hilar*, and it is at this part where the renal artery enters and the renal vein and ureter leaves. If a kidney is cut lengthwise a small cavity will be found at the

hilar. This is the *pelvis* of the kidney, and it is in this situation that stone or gravel sometimes accumulates, constituting a diseased condition of the worst kind.

In structure the kidneys are composed of an *outer* zone known as the *cortex*, and an *inner* zone, the *medulla*, which are formed of numerous tufts of capillaries, called *glomeruli*, each one a *glomerulus*, and uriniferous tubules lined by epithelial cells.

The ureters are short tubes entering the bladder at its back part, whilst the urethra (in the male) runs along a grooved bone situated in the substance of the penis, so that it is several inches in length in the male, whereas in the bitch it is short and straight, and has a small opening—with a valve-like arrangement—on the floor of the vagina. In the dog it curves around the arch of the pelvic bone and this renders the passage of the sound (catheter) a trifling degree more troublesome; but in both the dog and bitch it is a very simple matter, unless there is some obstruction (such as a stone, etc.) in the passage.

The *bladder* has a *thick wall* and is lined by mucous membrane. It rests when distended on the pubic bone. The neck of this organ is encircled by the *prostate gland*.

Muscular contraction forces the urine from the bladder, the acts of urination in the male dog being frequent, and the urine ejaculated spasmodically.

(f) *The Generative Organs.*—The *male* generative organs consist of the testicles and spermatic cord, and the penis. Each testicle is enclosed in the scrotum or bag, and their function is to secrete the fertilizing element—a viscid fluid. The male organ has a bulbous swelling that becomes engorged with blood during copulation, thus temporarily uniting the sexes at the breeding season. The os penis is embedded in the substance of the organ, and the urinary conduit traverses its length.

The female genital apparatus comprises the right and left ovary and their ducts—the fallopian tubes, which serve to convey the ripe ova (during œstrum) to the uterus or womb for contact with the male element. The ovaries rest just behind the kidneys, and are occasionally the seat of disease; if so, the animal will probably be sterile.

Their removal, to prevent bitches from breeding, is frequently resorted to, constituting the operation known as spaying (oophorectomy). The uterus, vagina, vulva and mammary glands (teats) are the remaining generative organs.

The uterus has a right and left cornua or horn, and a body, gestation being multiparous. The vagina is the passage connecting the uterus and the vulva or outer female organ.

Most of the internal generative apparatus (uterus and vagina) occupies the pelvic cavity.

There are usually five teats on each side, whilst very rudimentary ones are present in the male.

Some of these teats are pectoral in position, others situated in the abdominal and pubic regions.

Lactation begins at the time of, or a few days prior to, the birth of the puppies, and continues until the sixth week as a rule, this being about the usual weaning period, seldom later, though not uncommonly a couple of weeks previous to the time specified.

The secretion is at first of a watery consistence, but gradually assumes the physical appearance characteristic of a true emulsion.

Although the lacteal secretion is normally incidental to pregnancy, its presence does not afford positive evidence of such, as it also makes its appearance in a modified degree at full time, yet the bitch may be sterile.

The Skin and Other Structures

The Skin.—The skin may be regarded as a protective covering to the muscles beneath, between which and the former is the *subcutaneous* tissue. In most of the hounds the skin bears short hairs, but in Deerhounds, Wolfhounds, Otter-hounds and Persian Greyhounds long hair is characteristic.

Both hair and skin vary in thickness and texture in different regions, but it may be accepted in a

general sense that the thinner the skin the better the quality of the hound.

A thick, coarse skin is certainly indicative of inferior lineage. In the regions of the head, face, shoulders, limbs, beneath the arms, between the thighs and on the breast, the skin should be thin, being thickest on the back, withers and upper face of the neck.

The skin inside the thighs is thinner than that upon any other portion of the body, and the hair finest in that region.

The appendages of the skin are the hair and nails, whilst the sweat glands and sebaceous glands are concerned with the elimination of watery and oily constituents.

The sebaceous glands are small racemose structures opening into the hair follicles, secreting the greasy or oily material that lubricates the hairs, giving the coat its glossy appearance. When a dog is washed with soap and water the "yolk" is removed, and it takes a day or two for it to recover that lubricant, which affords the coat a degree of protection against excessive wetness.

The sweat glands—not numerous in the skin of the dog, excepting in the pads of the feet—are controlled by the nervous system, and assist the kidneys in the disposal of liquid waste, though the balance of the temperature of the body of the dog

is principally maintained by “panting,” which represents a modified form of perspiration by the skin.

The skin is composed of two portions, viz., an upper one or epidermis, and a lower one, the corium, or true skin, and it is in the last named that the blood-vessels, nerves, sweat glands, etc., are situated.

The superficial layers of the skin (cuticle) are constantly being shed in scurf and replaced by division of the cells situated in the deeper layers of it.

The Eye

A knowledge of the elementary anatomy of the eye is of value to everyone, more especially when one considers the vital importance of the eyesight, defects of which may render a dog such as the Greyhound useless for work.

Without the possession of the normal senses—sight and smell, likewise that of hearing and taste—a dog is handicapped, though to a variable degree, in accordance with the specific lines it has to undergo.

Some hounds hunt by sense of smell only, others by sight, whilst a third class work by the combined use of both these senses.

The range of vision would appear to be very extensive in the Greyhound, and the same remark applies, in a modified sense, to the sight of the whippet.

The eyeballs are lodged in bony sockets, the upper segment of the orbital circle being completed by a ligament and not by bone, as in the horse, etc.

Each eyeball is composed of three tunics, named from without to within as follows:

- (a) The Sclerotic coat.
- (b) The Choroid coat.
- (c) The Retina.

(a) *The Sclerotic Coat.*—This forms the white portion of the eyeball and is composed of a tissue known as white fibrous. In its normal condition the most minute blood-vessels can be seen passing here and there over its surface from the border of the eye, but when the eye is irritated these minute thread-like blood-vessels become injected, sometimes so much that the whole eyeball becomes blood-shot.

At the back of the eyeball the optic nerve (nerve of sight) pierces the organ and expands on the inner surface of the retina.

The front central portion of the eyeball is transparent, circular, and composed of muscular layers of cells. It is called the *cornea*, and is fitted into the sclerotic like a watch-glass into its rim.

It is this portion of the eye that is commonly the seat of opacity. Either through injury or disease, thus, a spot upon the cornea will interfere with the proper admission of the rays of light into the interior of the eye.

(b) *The Choroid Coat*.—This coat is interposed between the sclerotic and the retina or inner layer.

It is composed of several layers of cells, many being pigmented.

(c) *The Retina*, or inner layer, is the exceedingly delicate structure and the one mainly concerned with the reception of the light and its transmission to the optic nerve.

This layer is composed of numerous rod- and cone-like cells arranged in a regular manner, but the structure of the retina is too complicated to enter into in a work of this description. In the interior of the eyeball there are two chambers, one in front of the *lens* and the other behind it. That in front of the lens contains a clear fluid called the aqueous humour, this chamber being known as the *anterior* one, in contradistinction to that behind—the *posterior* chamber, which contains the *vitreous* humour.

The lens is a bi-convex crystalline body covered by a clear structure known as the capsule of the lens, and the latter is suspended in position by means of a delicate ligament.

In front of the lens hangs the muscular curtain or *iris*, which has a central slit or opening popularly known as the *pupil of the eye*.

The *iris* is pigmented, and confers the colour upon the eyes, which of course varies according to the variety of dog. The *iris* is composed of circular

muscular fibres, and the pupil is constantly *contracting* and dilating under the influence of strong light and shade respectively, this being a measure as to the healthy state of the vision.

The eyeball is maintained in position by muscles, which regulate the movements of the organ.

The eyelids are reflected over the globe of the eye and lined by mucous membrane—the *conjunctiva*—which, during health, is of a bright pink colour, though in disease its colour becomes heightened, or it may be paler than normal. At the inner border of the eye there is a small piece of cartilage. This is the *membrana nictitans*, or third eyelid as it is sometimes called.

The lachrymal gland (tear-secreting organ) is situated beneath the upper eyelid.

The Ear

The external ears, or flaps, are composed mainly of skin and yellow-fibre cartilage, hence the reason why hounds in this part usually prove so troublesome to heal.

To prevent the infliction of injury to the ear-flaps, it has always been the custom to “round” the ears of Foxhounds, though the necessity for doing this has frequently given rise to a good deal of newspaper controversy. It can hardly be regarded as an operation of necessity, but one that has become established

through the usage of time, yet many M.F.Hs. have now abandoned the practice.

The ear-flaps serve to protect the passage of the ear against the entrance of foreign bodies, and are regulated by muscles passing from the base of the ear to the skull.

The *middle ear*, or auditory passage, establishes a communication with the *internal ear* and external surroundings.

The internal ear consists of three small bones, known as the malleus, the stapes and the incus, together with a drum-like structure, the tympanum (ear drum), etc.

The auditory nerve regulates the transmission of sound to this membrane—the tympanic membrane, which is semi-transparent and funnel-shaped.

The labyrinth of the ear consists of the vestibule, semicircular canals, and the cochlea, all complicated structures, and no advantage would be gained in entering into a description of them in a work of this nature.

The skin in the cavity of the ear is very thin. Beneath it there are numerous follicles, below which there are glands. The latter secrete a waxy-like material (cerumen), which helps to keep irritating materials from injuring the delicate portions of the internal ear.

Inflammation of the skin within the ear is very

common amongst all classes of dogs, and frequently accompanied by suppuration, constituting the so-called *internal canker of the ears*.

The ears of hounds should be periodically inspected in order to ascertain whether they are in a healthy condition or otherwise. Deafness is not uncommonly ascribable to canker, or it may be of a congested nature, in which case it is beyond remedial measures.

However, inspection is recommended once a month amongst packs of Foxhounds, Harriers, Beagles, etc.

CHAPTER IV

CONFORMATION OF A HOUND

WITH very few exceptions all hounds should conform to one type so far as their general build is concerned, which should be upon such lines as are best fitted for endurance and speed so typically portrayed in the Foxhound, the conformation of which is, to my mind, as near the *ideal* of physical development for a given purpose as can reasonably be expected.

The Foxhound possesses a maximum of muscularity, bone and substance, combined with economy of material throughout the body. In a modified degree all hounds should comply with the excellences of bone and muscle attained by the Foxhound, the construction of which has been the outcome of centuries of careful selection in breeding. Under the heading of this chapter no particular variety of hound will be considered, but the hound's conformation surveyed in a general manner, specific distinctions being left for consideration under the sections devoted to the different varieties of hounds.

Irrespective of variety, every working hound must have one essential qualification, and that is a

powerfully-developed muscular system, as this is significant of endurance. The type of head necessarily differs in the various breeds of hounds, but in all it must be covered by thin skin, clean in its under-line; the nose wide, and the nostrils particularly well developed.

In most hounds the eyes are dark, of medium size, and full of benignant expression.

Ears should always be thin in the leather and covered by fine, soft hair; thick ears and coarse hair are usually indicative of inferior lineage.

The neck should be beautifully modelled and join long, sloping shoulders well laid back at the withers.

A great deal of attention is paid to quality in the region of the shoulders, and every hound ought to have moderately fine—never coarse—shoulders.

No matter what variety of hound, strength of forearm is of great importance. In the Foxhound the bones of the forearm obtain a maximum degree of development, whilst the muscles clothing this region are remarkable for their great development. The length of the forearm varies in the different breeds, being greatest in the taller hounds, such as the Greyhound, the Boarhound and the Russian Wolfhound, whilst it is shortest in Dachshunds, Bassets and Beagles; nevertheless strength must be proportionate to the length of forearm. In a Foxhound it is of medium length, but broad from

back to front, and from inner to outer side. The elbows must never turn outwards, a slight inward turn not being objectionable, the best position being elbows looking directly backwards. The wrist to the knee-joint must be a good breadth from back to front, and from side to side. Pasterns—the region that corresponds to the back of the hand—broad, especially at the junction of the wrist and toes, and with a moderate degree of obliquity. The hind pasterns are always longer than the fore ones, the maximum of length being obtained in the Greyhound, and the greatest degree of strength in the Boarhound and the Foxhound, while shortness of pastern is found in Bassets and Dachshunds. The chest must always be deep, in fact great depth of chest is one of the most important points about a hound, such depth being measured from the brisket to the withers.

A broad chest is objectionable, as it hampers speed. A chest of medium width is the best for general purposes, and should for preference be rather flat behind the shoulders. The conformation of the back and loins varies in accordance with the breed, but in every hound it must possess two attributes, *i.e.*, be broad and muscular, with a slight rise from front to back, but never to such a degree as to confer the title of “roach” or “wheel” back, as such is very detrimental in a hound. The muscles of the loins should be well defined in their outlines, and pass

into gracefully-sloping quarters, which in all hounds must be particularly well-developed, so much depending upon great strength of loins, combined with muscular development in the region of the first and second thighs, which in the Greyhound are long, but in the Foxhound are of medium length, the second thigh being particularly strong, more especially at the hock joints, which latter ought to be clean, broad, and look directly backwards, neither over bent nor too straight. A hound that has either sickle hocks or cow hocks is no use either for show or for breeding purposes, although both are extremely common defects of conformation. The pasterns of the fore limbs occasionally assume a similar direction, being turned outwards, constituting the so-called "splay" feet. The carriage of the stern varies in the different hounds, and according to whether at repose or work. Regarding the conformation of the head, a passing reference has already been made to this, and there is nothing to add excepting that in some varieties of hounds the skull is flat, or nearly so, as in the Greyhound, whereas in Bloodhounds and Basset-hounds the occipital bone is high, therefore the so-called "stop" becomes more pronounced in proportion to the height of the dome of the skull.

CHAPTER V

THE FOXHOUND: ESSENTIAL FEATURES

PRE-EMINENT in the kennel world stands the Foxhound, and there is no variety of dog that has been preserved with greater care, regardless of expense, than the hound now under consideration. As to when these hounds were first used for fox-hunting there is no reliable information, though volumes have been written, directly or indirectly, concerned with the breeding and the establishment of Foxhound packs throughout the British Isles. Hounds of the Foxhound type can be traced back to early on in the sixteenth century, though the author is not aware that they were then used for hunting the fox, but hare-hunting is a very ancient form of sport. Xenophon, who lived over 300 years B.C., has left records that he indulged in this form of sport. In a book written some time between 1406 and 1413, entitled *The Master of the Game*, the following passage occurs:

“The fox is a common beast, and therefore I need not tell of his making, and there be few gentlemen who have not seen some. He hath many such conditions as the wolf, for the vixen of the fox bears as

long as the bitch of the wolf bears her whelps. Sometimes more, sometimes less, save that the vixen fox whelped under the earth deeper than doth the bitch of the wolf. . . . With great trouble men can take a fox, especially the vixen when she is with whelps, for when she is with whelps, and is heavy, she always keeps near her hole, for sometimes she whelpeth in a false hole, and sometimes in great burrows, and sometimes in hollow trees, and therefore she draweth always near her burrow, and if she hears anything anon she goeth therein before the hounds can get to her. She is a false beast, and as malicious as a wolf. The hunting for a fox is fair for the good cry of hounds, that follow him so nigh and with so good a will. Always they scent of him for he flies through a thick wood, and also he stinketh ever more. And he will scarcely leave a covert when he is therein. He taketh not to the plain open country, for he trusteth not to his running neither to his defence, for he is too feeble, and if he does, it is because he is forced to by the strength of men and hounds. And he will always hold a covert, and if he could only find a briar to cover himself with, he will cover himself with that. When he sees that he cannot last then he goes to earth, the nearest he can find which he knoweth well, and then men may dig him out and take him, if it is easy digging, but not amongst the rocks.”

According to Cecil, the original idea of the chase was either for procuring food or else for destroying noxious beasts.

For upwards of two hundred years Foxhound breeding has been carried out with infinite care and regard until it has now attained the highest standard of excellence possible—speed, stoutness and endurance being essential attributes of such excellence. Throughout the British Isles, and in various foreign countries, this variety of hound affords the most popular variety of sport amongst a class who are fortunate enough to be able to indulge in it, whilst the indirect advantages that accrue from it, commercially and otherwise, constitute a considerable part of the revenue. A pack of Foxhounds of fashionable breeding has been known to realize several thousands of pounds at public auction, whilst two or three hundred pounds is not uncommonly paid for a high-class stallion hound. It stands as an indisputable fact that the noblemen of England past and present have done more towards improving the quality of the Foxhound than any other members of the community, and it is only just in passing to pay this tribute. *The Foxhound Stud Book* was established for the purpose of recording the pedigrees of eligible hounds, and it now stands as a record of what good can be done by a systematic collection of the various data relating to individual hounds.

There is no question of doubt that the conformation of the Foxhound displays economy of material in a remarkable manner, every inch of its anatomy being specifically developed to obtain the maximum result compatible with the purpose for which the breed was originally designed. Masters of Hounds have from time to time been in the habit of obtaining fresh strains from other packs, in order to maintain robustness of constitution and staying power. In Foxhounds, as in all other animals, prolonged interbreeding exercises a most pernicious influence, and this fact should never be lost sight of. In general build a typical Foxhound should respond to three words, viz., bone, muscle and substance, combined with a kindly facial expression and unswerving courage. If a hound has a surly or "dour" temperament it is not the type of dog to perpetuate. The neck, the shoulders, the deep girth and the big-boned limbs are parts of the anatomy to which a hound judge at once directs his attention, and any sign of weakness in the regions named at once handicaps the dog. In judging stallion and bitch Foxhounds due allowance must be made for feminine characteristics, as the bitch hounds have never the strong physical development portrayed in the dog hound. This is particularly obvious in the strength of the head, the bitch hound lacking in masculine features. The skull ought to show very little dome, but be flat

at the occiput, with " stop " ill-defined; length and strength of skull are requisites. The fore-face must be broad in all proportions, square in outline, whilst the jaws should be powerful, the nose large, the lips and the flews deep. Pig jaws and pendulous flews are regarded as unsightly. The ears are generally rounded, but whether this is really necessary is an open question. The correct type of eye is one that is expressive of the highest degree of intelligence, with the iris deep coloured and the globe of the eye of medium size. The Bloodhound type of eye is not a good one for a Foxhound. If the conformation of the neck is good the head will be well balanced, and this materially adds to the beauty of a hound. The shoulders should be rather straight, also long and strong, yet not overloaded with muscle; neither should the breasts be broad. The body or middle piece requires to be specially deep at the chest, the ribs broad, but the flank area thick, so as to give a good coupling of the hind limbs to the body. The back ribs must be well sprung, otherwise the hound becomes weedy at the flank and too much tucked up. Great strength of back and loins is one of the prime features of a Foxhound. There must be nothing beyond the most trifling rise of the loins, and the more level the line of contour the better the quality of the hound. The stern should be carried in scimitar fashion; this brings us to the quarters and the

succeeding parts of the limbs, both fore and aft. A Foxhound must display big muscles and big bones, along with broad joints. The thighs and the quarters should show powerfully-developed muscles, well-turned stifles and clean, broad hock joints. The "cow hock," the "curby" or "sickle" hock, or hocks in which the os calces (points of the hocks) point outwards are, as in all other dogs, defects of conformation of the most unpardonable kind. Nevertheless, these are faults that are easily perpetuated, but should be rigidly excluded by Masters of Hounds in breeding operations. It is impossible for the fore-arms and pasterns, likewise the first and second thighs, as well as the pasterns of the hind limbs, to be too massive in bone—bone, muscle and tendon constituting the principal aim of the Foxhound breeder. Straight fore limbs, well placed in relation to the body, ending below in close, well-arched toes, are complementary in the quality of a hound.

Regarding the colour of a Foxhound, the commonest are tricoloured and pied, but the Belvoir tan is greatly admired, though colour is of very little importance, and quite subsidiary to quality in other respects. The ideal hound is one that not only excels in all-round conformation, but one that displays the highest degree of speed, pluck and endurance under the most trying circumstances.

CHAPTER VI

A GLANCE AT THE EVOLUTION OF A FOXHOUND

BY J. FAIRFAX BLAKEBOROUGH

“ On the straightest of legs and the roundest of feet,
With ribs like a frigate his timbers to meet,
With fashion and fling and a form so complete,
That to see him dance over the flags is a treat.”

A STORY is told to the effect that the Rev. “ Jack Russell,” of Devonshire venatic fame, was once asked if he considered the Foxhound a distinct species of dog from the first. Lord Carrington, who was present, endeavoured to simplify the question by adding to it, and said, “ Did he, in fact, come out of the ark? ” Russell quite spontaneously replied, “ How could he? Did not a brace of foxes come out alive? ” The question of the evolution of sporting dogs, under which category the Foxhound, of course, comes, is an interesting one, but it creates so great a number of side-issue questions that a large volume would not contain all the data and theory which has been propounded from the day of Turberville to Somervile and on to the present day. To even glance cursorily at the evolution necessitates also a very clear and definite facing of the question of instinct and reason, and a line of demarcation fixing

between the two. One is compelled to go back to the far mediæval epoch, when there was not so very wide a distinction between the genus homo and the fauna of the world, when the course of life and being was ruled to a considerable extent by the continuous necessity of satisfying the calls of hunger and thirst and safety and the passions. This quartette right down the ages begat instinct, which is innate and cannot be taught. To a certain extent reasoning powers were developed under favourable auspices, the banding and uniting of clans or species for the better preservation of life and the means whereby life is created and maintained. Local surroundings and conditions, climate, and even colouring, influenced the form, height, size, colour of the animal kingdom, which in its absolutely wild and natural conditions had, and to a certain extent still has, a wonderful sympathy with that inner entity of things, the indescribable something which is to flora and fauna what personality is to human beings—that which remains when a thing is stripped of all its accidents. This sympathy is little understood and less quoted in reviewing the evolution of species, yet it has ever been an important factor. It is a platitude that the primary concern of flesh and blood is food, and to a certain degree the first concern of plant life is the same. Almost the first action of an animal on being born is to search for its mother's teats. This is

instinct, and recently in a letter to the writer that well-known authority on matters equine and canine, Major-General Tweedie, referred to this very question thus:

“Before considering instinct and reason together, it is necessary to assign a meaning to the latter word. Otherwise the question, ‘Do the lower animals reason?’ cannot well be dealt with. Reason, in the sense Horace used it, as in *Seu Ratio dederit, seu Fors objecerit*, is quite intelligible; but if reasoning means the faculty of thinking out, a syllogism nebulosity comes in.

“The instinct of this to purposes prescribed by many perhaps depends on discipline, education, training, rather than on anything more recondite.

“Every puppy points more or less, or crouches, at the sight of farm-yard poultry, and this instinct man has developed into the mature act of the highly-bred pointer and setter.

“Had Nature not been beforehand with us in inclining every litter of pigs from the moment of their birth to the teats, could we ever have done so? Man is a great factor, but there are even more powerful factors behind him.”

Without further labouring the point then, there is a natural innate force in the canine world to hunt which has come right down the ages from the epoch when upon the prowess of the animal in this direction

rested his being. Instinct cannot be taught, but it *can* be directed by training and breeding. Take the Foxhound as an example; until he comes under kennel discipline he has no preference for his legitimate quarry—the vulpine species. Indeed, there are many signs that he prefers the hare, and also runs the rabbit with pleasure. He is merely obeying the natural laws created by the demand for sustenance, and still obtaining when the *raison d'être* of those laws no longer exists. In him for years the instinct has been fostered and encouraged, but controverted and directed, and herein one is inclined to introduce the subject of reason. There is a line of demarcation betwixt the twain. The fox is no more to the Foxhound than the hare or the rabbit. Indeed, some authorities tell us the scent of the hare is more pleasant to the hound than that of the fox. Some hounds can never be cured of running riot on the line of a hare, and have to be drafted, but the vast majority, well-fed and well cared for, with no real occasion to push through the prickly briar and gorse, seek for the fox with zest and enjoyment and are heedless of hares and rabbits under their very noses. This is the direction of instinct and probably the point at which reason is introduced. It is probable, however, that instinct is always stronger than reasoning powers. How many packs are there, steady, quick to understand and obey the huntsman's



A FULL PACK OF FOXHOUNDS, OTTERHOUNDS, WITH A CROSS
BETWEEN THE TWO BREEDS

horn or voice and the whippers-in, or which, having drawn covert after covert for fox blank, would not eventually run riot? I have seen this over and over again. It was this very reason which some years ago caused the outbreak of sheep-worrying with three Yorkshire moorland packs—the Bilsdale, Farndale and the Mr Conyers Scrope's pack (now defunct). Hounds drew all day, and failing to find a fox they went in full cry and with hackles up after a sheep which sprang up before them. Instinct overcame reason; the nature of the animal is to hunt. The reasoning powers of Foxhounds may be well illustrated by reference to the early history of the Cleveland (Yorkshire) pack. When they were the Roxby and Cleveland, and, as many, if not most, packs did about this period, hunted hare and fox on alternate days, they knew perfectly well which was the beast of venery they were to follow on each day, and on "hare days" would not look at a fox or speak to the vulpine line, whilst on fox days they were quite steady from hare. On the former occasions they were taken to the fallows and turnips, and on the latter they were cast in to covert with "Hi in, lads, a fox!" So they used their reasoning powers to differentiate.

Then again take the Badminton Hounds, which till 1762 were quite cosmopolitan as to their quarry. We are told by the Duke of Beaufort (who quotes

Cecil) that the fifth Duke had a run with a fox in the year mentioned "which so delighted the young sportsman that the hounds were forthwith steadied from deer and encouraged to fox."

Evolution! It is an awkward word to deal with in a chapter. If we attempted to touch upon the evolution of hounds we should also have to renew the whole evolution of social life and sport, for the one has influenced the other, and the twain have combined to bring about the evolution of manners, customs, life generally, and the horse and hound essentially. Turbervile, in 1576, and writers before him, give directions for the breeding of various hounds for the chase of the hart, hare, stag, fox, badger and so on, but here one must observe (1) What was the objective of the chase—sport, culinary, or merely extermination? (2) What were the means adopted, the speed of the hound, and its quickness as in coursing, or its endurance, perseverance and olfactory powers as in hunting—was it the eye or the nose which was to be employed? These matters of course materially influence the formation of the hound and the character of the sport. In many cases one discovers a few old hounds were kept to rouse the quarry from its form or kennel in the then huge forests and woodlands, and so soon as it took the open hounds more of the Greyhound type were slipped from the leash. With no other purpose than that



A MINED PACK--OTTERHOUNDS AND CROSSED FOXHOUNDS

HOUNDS

To face page 76

of extermination, when the fox was described as "a stinking beaste whose scent doth spoil the chase of the hare," he was hunted, and not till early Victorian times did he occupy an honoured place in the list of animals of ventry. It is at this period that the Foxhound began to be a distinct and separate breed. Somervile, so early as 1735, had urged:

"A diff'rent hound for ev'ry diff'rent chase
Select with judgment."

But much the Right Hon. D. H. Madden, M.A., in his *Study of Shakespeare and of Elizabethan Sport*, says (p. 169) applies equally to Somervile's day:

"But although some sport might thus be had with the fox ere you case him, the final cause of fox-hunting was the destruction of noxious vermin.

"No word is too bad for 'the fox that lives by subtlety.' He is 'a crafty murderer,' and 'subtle as the fox for prey' is the miscreant who may be likened to the 'fox in stealth.'"

This custom of giving the fox a bad name survived among sportsmen to the days of Somervile and Beckford, in poetry as well as in prose. For in the classic pages of *The Chase* the fox is denounced as the wily fox, the felon vile, the conscious villain, and the subtle, pilfering fox. And even in the early years of the nineteenth century there were districts where the church bell was rung when a fox had been marked

to ground to summon "every man who possessed a pickaxe, a gun, or a terrier to hasten to the spot and lend a hand in destroying the noxious animal." *

Of course with the greater status of the fox in venery at once came the real science of hound breeding. That is not to say there were not Foxhounds prior to this, nor would it be correct to say there were not hounds *solely* with fox as their quarry. The sporting world had left behind them the epoch when "the ordinary kennel of running hounds, uncoupled at every chase, was master of none."

The character and manner of hunting, however, had called for no very distinct type of hound for the chase of the fox. He was found pretty much as the stag is now, by "old, staunch hounds," and when on foot the remainder of the pack were "laid on." The whole sporting process was a slow one. Hounds were slow, horses were slow, and so the fox, never much distressed at the outset, stood up before hounds for incredible periods. Mr Meynell never presumed to come to the aid of his pack and cast them so long as they could hunt. The Duke of Beaufort, in the *Badminton* volume on Hunting, asks a pertinent question on comparing sport of to-day and that just prior to the great evolution which brought about and necessitated the change in the type of hound employed. His Grace says:

* *Memoir of the Rev. John Russell.*

“Fox-hunting, as we know it now, with its pace and hard riding, its sumptuousness and refinement, may be said to have come on with this century. . . . Whether the sport is now what it was in the days whose glories ‘Nimrod’ has written of and Alken painted, it would be as ungenerous to ask as difficult to answer.”

It was perhaps during the first twenty years of the eighteenth century that hound breeding was taken up with enthusiasm, whilst half a century later it had really become a science. In speaking of the evolution, most enthusiasts and authorities go back to Mr J. Corbet’s Trojan, whose date was about 1783. He was toasted, idolized, made the subject of verse and song, pilgrimages were made to gaze upon him, and Mr Corbet considered him infallible and incomparable. To Mr Hugo Meynell, however, if the history and legend of the chase speak the truth, is due the beginning of the change in the character of fox-hunting and the foxhound. He began to breed hounds for pace and soon had some disciples. It is generally admitted, too, that he was the one to introduce the forward cast as the first cast, thus encouraging dash, and at once saying good-bye to the harrier and the old, slow-dwelling, scent-drunken, Southern hounds. During the next quarter of a century there were hound matches and races galore. The evolution in pace was assured, and the real

evolution, to which there had previously been a slow but definite move, had begun in earnest. The added pace and dash of hounds was assured just as was that of horses, which at once began to improve owing to Meynell's discoveries and theories and the application of them.

Right down to the present day hounds have continued to be bred with a view to pace and dash. Pessimists are apt to point to this as a distinct sign of deterioration in the fundamental principles and science as well as the enjoyment of venery, and to suggest that hunting has by a sporting evolution become a mere steeplechase, and that hounds are merely employed as machines to map out the course. There is some truth in the plaint of the old school.

Hounds are possibly bred more with a view to pace to-day than ever was the case before, and more is thought of a fast twenty minutes' gallop over a nice jumping country by the average hunting man and woman than an hour's hunt full of hound work and hound music. It was the more speedy hound, however, which necessitated the altering of the old type of hunter, so full of stamina, so that the rider might live with hounds when they ran. Now, to a certain extent, the tables have been turned, and one might almost suggest hounds have to be bred with a view to keeping clear of the horses. Instead of running in double harness, or I should perhaps say in



THE "YOUNG ENTRY" IN THE PADDOCK

HOUNDS

To face page 80

tandem—hounds and fox first and field afterwards—there seems to have risen a certain amount of competition betwixt the twain—which *can* be bred the fastest. The hound has ever won the race. Many men, if not the greater number, now ride horses clean thoroughbred, or nearly so, whilst “the blood ’un” has come to be looked upon as the best lady’s hack. Not a few of these have won races, or are expected by their owners so to do. The first holloa from the huntsman and the first couple of hounds away from covert is equivalent to the raising of the much-discussed starting gate, except where there is a martinet master or field-master, and hounds are frequently over-ridden, thus handicapping both their efforts and those of the huntsman, and spoiling sport into the bargain. The fact that hounds *are* over-ridden does not, however, go to prove that they are unequal to the pace of the horse; indeed, despite all arguments, the whole of the evidence goes to show that the horse has neither the pace nor the staying powers of the hound. This has ever been the case. If we turn to the earliest of the racing calendars, that published by W. Pick of York, in 1785, we find that in 1779 the famous Col. Thornton made a match for a piece of plate with Sir Harry Featherstone and Sir John Ramsden, Barts. The match was that the Colonel would find a fox either on Hambleton or in the Easingwold country

after Christmas which would run twenty miles. The certificate goes to show not only that hounds were possessed of great strength in those days, but had evidently a good turn of speed, and that both were greater than the corresponding qualities in the horse. It runs:

“We, the undermentioned, do declare that, on a day appointed for the decision of a bet made by Col. Thornton with Sir J. Ramsden and Sir H. Featherstone, a fox broke off in view of the hound and company, which fox was killed after a continued burst (there not being one check), by the different watches, for two hours and thirty-eight minutes; and we, being the only gentlemen present, do believe that the said fox ran at least twenty-eight miles. Col. Thornton, being a party concerned, gave no vote. There were only eight horsemen out of seventy up. (Signed) Lascelles Lascelles, Henry Kitchingman, Val Kitchingman, William Dawson, Randolph Marriott.”

It must always be remembered, of course, that whatever hounds be hunting they have much to regulate their speed. Scent—that sporting mystery of all mysteries—is the great regulator. But even on a good scenting day, that is to say when conditions are favourable not for scent, but hounds procuring it, particles may not, and indeed probably

will not, lie equally on the grass and on the plough. So hounds may leave the field well in the ruck whilst crossing the grass but their noses be brought to the ground, with a consequent decrease in pace, when fallow or stubble is reached. The huntsman in such cases hears the galloping throng behind. He is a man essentially well mounted, whose duty it is to ride with a spare neck and leg in his pocket and to go straight. Hence he is on fairly good terms with his pack. He has possibly been able to catch a glimpse of his fox in front—this is part of his stock-in-trade—but failing this he must put himself very quickly in the place of the fox, decide which way he would have gone had the tables been reversed, note the movement of distant sheep and birds, rapidly lift his hounds and, employing Meynell's method, gallop them on perhaps for nearly a quarter of a mile and put them on the line again. Failing this, he would have had the field down upon him and his hounds with their heads up. How many scores of times have we seen hounds thus forced for a mile or more by a galloping field who neither know nor care whether or not hounds are running so long as they are piloting them at a good pace across country. This is a later day outcome of evolution. We all know the story of Mr Punch's sportsman (save the mark!) who said, "Beastly nuisance, these hounds, aren't they?"

It is often said that foxes have deteriorated. Artificial feeding and artificial rearing, the killing off of old foxes at the end of every season and leaving nothing but youngsters to hunt and breed from has undoubtedly had a deleterious effect upon the vulpine race in many parts of England (indeed almost the hills only excepted). When one hears old-time sportsmen arguing, "You never have the long runs we had," "Your foxes cannot stand up before hounds as long as they could in our day," and so on, we must remember that a fox only travels as fast as he is compelled to by hounds, which, on their part, travel as fast as their own powers and scent allow them, together with the ingenuity of their huntsmen, who may often come to the rescue when they are at fault. So on a good scenting day in the present century hounds will travel much faster than they would in the last century on an equally good scenting day. It is an old adage, "It is the pace that kills," hence the fox is rolled over very much sooner to-day than his contemporary would have been a hundred years ago. This is a natural sequence upon increased pace in hounds and horses rather than the deterioration of the fox. Turn again to W. Pick's Calendar (p. 8) and we find the following entry showing how long runs lasted

before the epoch of pace—the great feature of the evolution:

“BOROUGHBRIDGE MEETING,
19th March 1783.

CERTIFICATE

“We, the undermentioned, do declare that having met in order to see a MATCH run between the Earl of EFFINGHAM’S and Col. THORNTON’S Hounds—on the Confederate Hounds not appearing the Tryers declared the cup forfeited.

“We also further declare that the hounds found at twenty-seven minutes past nine, and, except the space of near half an hour taken in bolting the fox from a rabbit-hole, had a continued run until five o’clock, when we had an entopé; and after repeated views we killed him at fourteen minutes past five by the different watches.”

Following upon fifteen signatures comes the note:

“It was supposed that a greater number of horses died in the field than was ever known on a like occasion.”

Without referring to Mr Meynell’s and Mr Barry’s hound matches, let me sum up all the foregoing. We have glanced very hurriedly at the primary cause of hounds hunting, their adaptation, the directing of instinct by man, the usage of a certain amount of reason by hounds, the practice of employ-

ing the same hounds for all manner of chases, both for food, sport and extermination, the creation of types, and to a certain extent the recognition of Somervile's dictum (before Somervile's day), "A diff'rent hound for ev'ry diff'rent chase"; the period when the stag and the hare were the principal beasts of venery, the recognition of the fox and his inclusion in the list of animals worthy of chase, the slow manner of hunting on foot, or horses possessing no pace, and with Southern hounds and harriers gifted with little pace, and later a type of Foxhound little better; then the commencement of the evolution of pace when the country became freer of forests and the true merits alike of fox and Foxhound were discovered. These are, very shortly, the principal headings of the evolution of the Foxhound and withal of fox-hunting, so far as they can be dealt with in the limits of so short a chapter.

One would like to have followed the example of the old Southern hound and the old type of harrier and dwelt long on the line of such red-letter names in the history of the evolution as Charles Pelham (the first Lord Yarborough), Lord Granby, Sir Roland Winn, Mr E. Legard, Sir Walter Vavasour, Mr Willoughby, Sir Thomas Jascoyn, the Dukes of Grafton, Devonshire and Beaufort, John Warde, John Corbet, the sixth Lord Middleton, the immortal Osbaldistone, Mr John Musters, Col.

Thornton, the Duke of Cleveland, Lord Vernon, Asshetor Smith, Lord Henry Bentinck, Mr G. S. Foljambe and many others, right down to the Rev. C. Legard of to-day, who first started the Foxhound Kennel Stud work. As a Yorkshireman I have a very great pride in writing these names insomuch as more than half of them are those of Yorkshiremen. There are hounds, too, on which one would love to dwell and dilate: Trojan, Furrier, Contest, Bluecap, Weather-gage and many others of later day. Hound breeding has now probably reached the zenith of perfection so far as science and perseverance can bring. The price of Foxhounds was never so high, and the same may be said for the interest in them:

“Belvoir for tan, and Burton for wear, sir,
Brocklesby keeping you well on the line;
Badminton pies swing along cheerily,
Finding a scent, be it wild, be it fine.

Each have their virtue, all are for hunting,
Entries put forward soon die away;
Like many a huntsman, and many a sportsman,
Leaves but a memory of a long bygone day.

Giants there lived in days which have gone by,
Hounds were they better? or huntsmen? Well, well;
Keep up your standard, breed only for nose, sir,
And stoutness, of course, for one never can tell.

What sport in the future may somewhere await you,
What runs we may chronicle, ride through and see;
But always remember wherever you hunt, sir,
To look for a button that's marked with a 'B.'”

THE GREYHOUND

From time immemorial the Greyhound, or at any rate a hound of similar conformation, has been used for coursing the hare. During the reign of Queen Elizabeth coursing appears to have been indulged in, as a physician to that Queen—Dr Johannes Caius—refers to the Greyhound, and the Queen used Greyhounds for coursing the stag, but it is quite possible that the hounds used at that period were more of the Deerhound type. Moreover, Edmund de Langley and Gervase Markham both refer to the Greyhound, the former writing in the fourteenth century and the latter about the beginning of the seventeenth century. In the British Museum there is the mummy head of an Egyptian hound, the anatomical outlines of which bear some resemblance to those of the tall hound now under consideration. There is also a group of dogs displayed in the same museum found at Monte Cagnolo. This piece of statuary depicts two dogs which appear to be representative of the Greyhound. In modern times the Greyhound has been repeatedly referred to. Thus Sir Walter Scott, in his introduction to *Marmion*, speaks of the Greyhound in the following terms:

“Remember’st thou my Greyhound true?
O’er holt or hill there never flew,
From leash or slip there never sprang,
More fleet of foot, more sure of fang.”



THE LATE MR. JAMES HEDLEY, WHO JUDGED THE
WATERLOO CUP FOR 24 YEARS CONSECUTIVELY—
A TRUE RECORD OF HIS GREAT ABILITY

And innumerable other references are made to the Greyhound throughout classic, mediæval and modern literature.

The Waterloo Cup was established in 1836, and in that year eight dogs ran for it; 1837, sixteen dogs; 1838, thirty-two dogs; and this national coursing event has been steadily continued ever since, the Cup being the blue ribbon of the coursing world. Coursing the hare with Greyhounds is a very popular form of sport, and anyone who has participated in it cannot fail to appreciate the pleasure derived therefrom. In some counties, *e.g.* Norfolk, nearly every farmer keeps a brace or more of Greyhounds, and when hares are plentiful good sport is the rule. It is customary to slip a brace of Greyhounds after each hare as it requires a clever hound to catch and kill a hare single-handed, though plenty of them can do it, more especially hounds with more than a dash of the lurcher element in them. In passing it is worthy of note how extremely clever some lurchers are, so much so that the proprietor of one of these dogs usually receives a good deal of attention, both from the gamekeeper and the local policeman.

The National Coursing Club was established in 1858, and formulated a code of laws for regulating coursing meetings, and this club practically rules Greyhound coursing in all parts of the world. In this

respect its sphere of action ranks parallel to that of the Jockey Club, its tribunal settling all disputes relating to coursing.

The Duke of Norfolk, during the reign of Queen Elizabeth, drew up a code of laws, and from that time onwards coursing became systematized and recognized as a sport of considerable national importance. The conformation of the Greyhound depicts in a remarkable manner the development of the dog for a specific use, viz., great speed and length of stride. These hounds hunt by sense of sight, and obviously possess extensive range of vision. The Deerhound, on the other hand, not only hunts by sense of sight but, when this fails, by scent also. The average weight of the Greyhound is about 70 lbs., but weight must not be regarded as of much practical importance. The famous Greyhound, Coomassie, was only 42 lbs., whilst Miller's Misterton was 63 lbs. To be typical, a Greyhound must excel in two parts of its anatomy, viz., girth of chest and girth of loins. The girth of chest may be said to range from 26 to 31 or 32 inches, and the girth of loin from 18 to 24 inches. The height at the shoulder averages 26 inches, though this is variable. The head should be long and lean, and girth about 15 inches around the occiput, *i.e.*, midway between the eyes and ears, and its length from the occipital peak to the nostrils measures from 9



"HALLOW-EVE," WINNER OF THE WATERLOO CUP IN 1908

HOUNDS

To face page 90

to $10\frac{1}{2}$ inches. Most of the length is gained from the eyes to the nostrils. In outline the head is wedge-shaped, but it must be clean, the jaws close-fitting, free from loose skin, covered by fine hair horizontally. The eyes are set closely together and are oblique in shape; ears small, closely set, elegantly folding over along the front border and tips. Strong, long jaws and sound teeth are a *sine qua non*. The chest must be very deep but not wide; the shoulders oblique and long, well muscled but not overburdened in this respect; the arm long; the forearm long, straight, big-boned, clean in outline, with elbows carried close to the side; pasterns long and broad, ending in round, compact feet. Great importance is attached to quality of fore limbs, more particularly as to straightness, obliquity of shoulder and the possession of good muscular development in the region of the neck. Moreover, the fore limbs must be placed well forward, and the hind ones correspondingly so. The back and loins must be broad, square, and heavily muscled, great strength of loin being one of the most important points in a Greyhound. Width, depth, and power in the latter region are keenly sought after by connoisseurs of the breed. Regarding the hind quarters, both first and second thighs must possess great length combined with the highest degree of muscular development. Length of gaskin is better developed in the Greyhound than in any

other breed, and the same remarks apply to the pasterns. Hock joints broad and clean, and the points of the hocks must look directly backward. When hocks turn inwards or outwards the conformation is decidedly faulty. The tail should be long and tapering, with a slight curve towards the tip. With reference to colour not much need be said, as a good Greyhound may be any colour. Black and white, fawn, sandy and white, red and white, blue, brindle, light or dark, are amongst the principal colours. The famous Greyhound, Fullerton, was a brindle with a patch of white upon the breast. White points are very common, especially in front, and on the feet; likewise as a "ratch" on the face. The great length of the body, the long neck, the long forearm, deep chest, long and powerful first and second thigh, long pasterns, together with the deep chest and comparatively small head, are individually and collectively distinguishing features of these hounds, and the better such points are developed the nearer the approach to perfection. The low position of the body during coursing necessitates an extraordinary degree of muscular action, so much so that a Greyhound will occasionally fracture a limb through excessive muscular contraction.

General Management of Greyhounds.—Speaking in an Irish kind of manner, a Greyhound is no Greyhound if it is not kept in constant training;

both heart, lungs and muscular system must be maintained in the highest standard of vigour. If exercise is insufficient or irregularly given the muscles become soft, the heart becomes weak, and its power to respond to increased exertion fails; being a hollow muscular organ, there is a tendency for its fibres to degenerate when thrown into a state of comparative ease. When the muscles covering the skeleton are manipulated they should convey the sensation of being as hard as boards, and the outlines of the individual muscles be plainly discernible; and the more vigorous the exercise, provided such is carried out with regularity, the better the muscular development. In training a Greyhound horseback exercise is unquestionably the best of all, and should be given daily with gradually-increasing severity; from five to fifteen miles per day will constitute a reasonable amount of exercise, but a good deal will depend upon the amount of flesh to be reduced. To get a Greyhound well winded requires much the same care as the preparation of a hunter. In both, condition constitutes the most valuable asset, requiring time and patience combined with skill to obtain it. Some owners feed their Greyhounds only once a day, others twice; but there is one golden rule to follow, and that is, never to run dogs on a full stomach, and another one—to avoid feeding Greyhounds on bulky food. Lean, raw beef,

milk and eggs, along with hound meal, constitute the best food for a Greyhound.

NATIONAL COURSING RULES

Constitution and Bye-laws, and Code of Rules, as Revised and Adopted by the National Coursing Club, 28th June 1893, with alterations and additions up to 16th February 1909. (By kind permission of F. W. LAMONBY, Esq.)

CONSTITUTION AND BYE-LAWS

(a) The National Coursing Club shall be composed of Members elected by the Coursing Clubs of the United Kingdom of more than one year's standing, having not less than twenty-four Members each, and of Members elected as hereinafter provided.

(b) No Coursing Club shall elect more than two representatives, the names and addresses of the representatives so elected to be sent to the Secretary of the National Coursing Club; and should any Club fail to hold a Coursing Meeting for two consecutive seasons, that Club shall cease to send representative Members.

(c) The National Coursing Club may elect as Members of the Club (the number of Members so elected not to exceed twenty-five) any well-known supporters of public Coursing, who have been proposed and seconded by two Members of the National Coursing Club at either of the Club Meetings held in London on the last Wednesday in June, or in Liverpool on the day of entry for the Waterloo Cup. (*See Bye-law 4.*) Members are elected by the National Coursing Club for five years, and are eligible for re-election. A month's notice must be given to the Secretary of the names of candidates for election to the National Coursing Club, with their addresses, and the names of their proposers and seconders, before they can come up for ballot. The election shall be by ballot, in which one black ball in seven shall exclude. If a quorum of Members be not present, then the election shall stand over till the next Meeting of the National Coursing Club. The Secretary shall insert in the notice of business to be transacted at the Meetings of the National Coursing Club the name of any candidate for election, with his address, and the names of his proposer and seconder.

(d) The National Coursing Club shall annually, on the day of entry

for the Waterloo Cup, elect two of its Members as President and Treasurer, and two of its Members as Auditors. At all its Meetings seven shall be the quorum. The Standing Committee to appoint Secretary and Keeper of the Stud Book, at such remuneration as they from time to time shall decide.

(e) Coursing Clubs desirous of joining the National Coursing Club must send evidence of their qualification to the Secretary. All Clubs having joined the National Coursing Club must subscribe £2 annually, and all Members elected by the National Coursing Club, £1 annually, to the funds of the National Coursing Club, payable on the 1st of January of each year to the Secretary of the National Coursing Club. No representatives of any Club which has not paid its subscription, and no Members elected by the National Coursing Club who have not paid their subscriptions on or before the day of entry for the Waterloo Cup, shall be allowed to attend the Meeting of the National Coursing Club on that day. All Clubs, with their representatives, and all Members of the National Coursing Club whose subscriptions have not been paid on or before the first day of June in each year, shall cease to belong to the National Coursing Club. At the Summer Meeting in each year a statement of income and expenditure shall be submitted by the Treasurer and Secretary.

(f) Every Coursing Meeting shall, unless the contrary be declared by the programme of an Open Meeting or by Club Rules, be subject to all the Rules and Regulations of the National Coursing Club. Every question or matter in dispute connected with the coursing can be brought before the National Coursing Club for its decision.

(g) The affairs of the Club shall be administered by a Committee, called the Standing Committee, consisting of the President of the Club, and not less than seven members annually elected, of whom five only shall be eligible for re-election. Except as hereinafter provided, three Members of the Standing Committee shall form a quorum, with full and absolute power to deal with all business under the Constitution and Bye-laws and Code of Rules of the Club. All business dealt with, including all complaints made to, heard before, and decided by the Standing Committee, shall be reported annually to the Club Meeting, held at Liverpool on the day of entry for the Waterloo Cup. The Standing Committee shall have power to appoint Sub-Committees to deal with Irish and Scotch business, other than the complaints of discreditable conduct investigated under Rule 41 of the Code of Rules and Bye-law (h).

(h) The Standing Committee shall have full and absolute power to inquire into and determine all complaints of discreditable conduct

investigated under Rule 41 of the Code of Rules of the National Coursing Club, and when such complaints are found to have been proved, to impose such penalty or penalties as may be authorized by the Constitution, Bye-laws and Code of Rules of the National Coursing Club upon the offenders. For the conduct of such investigations the Standing Committee shall consist of not less than five Members, and if any person shall feel himself aggrieved by the decision of the Standing Committee, he may appeal against it to the Members of the Club at its next meeting for the dispatch of business, held in Liverpool on the day of entry for the Waterloo Cup. Notice of appeal must be given by the person aggrieved to the Secretary within fifteen days of the date of the decision of the Standing Committee. The Members of the Club attending the Meeting shall re-hear the case, and may by a majority of at least two-thirds of those present confirm or vary the decision of the Standing Committee as well as any penalty imposed under it; but if less than two-thirds vote to confirm or vote to vary the decision, it shall be deemed to be rescinded and annulled by the Club. Before any complaint of discreditable conduct is investigated by the Standing Committee, the Secretary shall give notice to the person implicated of the time when, and place where, the Standing Committee will investigate such complaint, and if he appears in pursuance of such notice, shall give him an opportunity of being heard by himself and of calling evidence in his defence. Any person appealing from a decision of the Standing Committee shall have the same right of being heard by himself and of calling evidence in his defence on such appeal; but neither before the Standing Committee, nor at the Meeting of the Club, shall any person be represented by solicitor or counsel. The decision of the Standing Committee is to be in force unless and until reversed by the National Coursing Club.

(i) Every decision of the National Coursing Club shall be final, and the National Coursing Club may order that the expenses attending any case or matter in dispute brought before it shall be borne by the parties interested as the National Coursing Club may direct.

(j) The Secretary shall place on record in the minutes of the business of the National Coursing Club all complaints investigated by the Standing Committee under Rule 41 of the Code of Rules, and their decisions upon such complaints, and if no notice of appeal against any decision of the Standing Committee be lodged with the Secretary within fifteen days of its pronouncement, the Secretary, subject to the direction of the Standing Committee, shall be empowered to publish it in the *Greyhound Stud Book*, and in the newspapers. The same right of publication, subject to the direction of the Standing Committee, shall exist in regard to complaints heard on appeal by the Members of

the National Coursing Club in Liverpool, on the day of entry for the Waterloo Cup, where the appellant has failed to obtain the rescission of the decision of the Standing Committee.

(*k*) Except as hereinbefore provided under Bye-law (*j*), the Secretary shall place on record in the minutes of the business of the National Coursing Club, and may forthwith send to the Keeper of the *Greyhound Stud Book*, and make public every question and matter in dispute brought before the National Coursing Club or the Standing Committee, with the decision arrived at.

(*l*) Meetings for the dispatch of business shall be held in London on the last Wednesday in June and first Wednesday in December, and in Liverpool on the day of the draw of the Altcar Club Meeting in November, and on the day of entry for the Waterloo Cup. The revision and alteration of Rules can only be made, and the election of Members can only take place at the Summer Meeting in London and at the Meeting in Liverpool on the day of entry for the Waterloo Cup. The Secretary, upon a requisition addressed to him in writing by any three Stewards of a Meeting held under the National Coursing Rules, or by six Public Coursers, Members of an established Coursing Club, may call a Special Meeting of the National Coursing Club at such a time and place as the President may appoint.

Note.—A motion was adopted at the Meeting of the Club, 20th February 1900, that the Meetings of the Club, other than the Annual Meeting on the day of entry for the Waterloo Cup (Bye-laws *d* and *l*), be left at the option of the Standing Committee.

(*m*) A month's notice must be given to the Secretary of any business or proposed alteration of Rules before it can be discussed at an Ordinary Meeting of the National Coursing Club; and at a Special Meeting nothing but the special business for which the Meeting was called can be brought before it.

(*n*) The Secretary of the National Coursing Club shall be allowed, subject to approval by the National Coursing Club at the Summer Meeting, all expenses incurred by him in connection with the National Club during the preceding year.

(*o*) Every person who enters a dog at any Meeting held under the Rules of the National Coursing Club, submits himself to the Constitution, Bye-laws and Code of Rules of the National Coursing Club, and to the jurisdiction of the Standing Committee and of the Club, and consents to the publication of any matter or decision permitted under and governed by the Rules and Bye-laws of the Club.

(*p*) Any person running a greyhound at an advertised Meeting not

under the Bye-laws and Rules of the National Coursing Club shall be disqualified from running a greyhound at any regular Meeting during the pleasure of the Standing Committee, and every greyhound the registered property of such person shall in like manner be disqualified.

CODE OF RULES

1. THE SECRETARY AND STEWARDS.—For any proposed Open Meeting a Committee of not less than three shall be formed, who, with the Secretary, shall settle preliminaries. The management of the Meeting shall be entrusted to this Committee, in conjunction with Stewards, who shall be elected by the subscribers present at the first evening of the Meeting. The Secretary, if honorary, shall be a Member of the Committee and a Steward *ex officio*. The Stewards alone shall decide any disputed question by a majority of those present, subject to an appeal to the National Coursing Club. No Steward shall have a right to vote in any case relating to his own dogs. The Secretary shall declare, on or before the evening preceding the last day's running, how the prizes are to be divided; and shall give a statement of expenses, if called upon to do so by any six of the subscribers, within fourteen days after the Meeting. No stakes shall be paid until fourteen days after the completion of a Meeting, but all stakes must be paid within thirty days.

2. *Ex Officio* STEWARDS.—Members of the National Coursing Club present at any Coursing Meeting shall be *ex officio* Stewards of such Meeting, together with the Stewards elected by the subscribers present on the first evening of the Meeting, provided always that such Stewards *ex officio* shall not exceed three. Members of the National Coursing Club may be elected by the subscribers as Stewards of a Meeting.

3. ELECTION OF JUDGE.—The Judge may either be appointed by the Secretary and Committee acting under Rule 1, in which case his name shall be announced simultaneously with the Meeting, or elected by the votes of the subscribers taking nominations; but each subscriber shall have only one vote, whatever the number of his nominations. Not less than ten days' notice of the day of election shall be given to the subscribers, and the appointment shall be published at least a fortnight before the Meeting. The names of the subscribers voting, with the votes given by them, shall be recorded in a book open to the inspection of the Stewards, who shall declare the number of votes for each Judge, if called upon to do so by any of the subscribers. When a Judge is prevented from attending or finishing a Meeting, the

Committee and the Stewards (if appointed) shall have the power of deciding what is to be done.

4. DESCRIPTION OF ENTRY.—Every subscriber to a stake must name his dog before the time fixed for closing the entry, giving the names (the running names if they had any) of the sire and dam of the dog entered. The Secretary shall publish on the cards the names of those who are subscribers but do not comply with these conditions. These nominations shall not be drawn, but must be paid for. For produce stakes the names, pedigrees, ages, colours and distinguishing marks of puppies shall be detailed in writing to the Secretary of a Meeting at the time of the original entry in all Puppy Stakes, and a subscriber must, if required, state in writing to the Secretary, before or during the Meeting for which such entry is made, the names and addresses of the parties who reared his puppies; and any puppy whose marks and pedigree shall be proved not to correspond with the entry given shall be disqualified, and the whole of its stakes or winnings forfeited. No greyhound is to be considered a puppy which was whelped before the 1st of January of the year preceding the commencement of the season of running. A sapling is a greyhound whelped on or after the 1st of January of the year in which the season of running commenced.

5. REGISTRATION.—Every litter of puppies shall within two months of the date of whelping be registered free of charge, with the names of the sire and dam, and the colour (subject to correction within six months of the date of whelping), sex, and number of the puppies, under a penalty of £1. A fee of 5s. shall also be paid for the registration at the time of naming of each puppy not registered according to the above requirements. The colours, sex, names, pedigrees and ages of all greyhounds, with the names of their owners, and the owners of their sires and dams, must be registered in the Stud Book. The registration fee shall be 1s. 6d. for each dog registered on or before 30th June, and an additional fee of 2s. shall be charged for the registration of all greyhounds (other than saplings) after that date to the end of the Coursing season immediately following. Any owner, by payment of 30s. annually, may compound for the registration of any number of greyhounds *bona fide* his own property. No greyhound shall be registered whose sire and dam have not been registered; provided always that such sire and dam may be registered at the same time on payment of a fee of 10s. for each dog; but the pedigree, with name of owner of such sire and dam, must be supplied to the Keeper of the Stud Book, and verified, if necessary, before such registration. Every change of ownership must be registered at a fee of 1s. A Certificate of Registration must be given on payment of the fee.

6. **STUD BOOK.**—The *Greyhound Stud Book* shall be published, under the authority of the National Coursing Club, on the 15th day of September.

7. **TIME FOR REGISTRATION.**—The registration of greyhounds shall be made on or before the 30th day of June, and registrations made after that date, if they do not appear in the Stud Book of that year, will appear in that of the following year.

8. **NAMES.**—If the same name has been given to more than one greyhound, the Keeper of the Stud Book shall give priority to the dog first registered, and shall add to every other such name, except the one first registered, a numeral commencing with II. Names once used will not be again available until after a lapse of ten years.

9. **GREYHOUNDS NOT REGISTERED ARE DISQUALIFIED.**—All greyhounds, whose names do not appear in the Stud Book, or whose owners cannot produce a Certificate of Registration from the Keeper of the Stud Book, on being required to do so by a Steward or the Secretary of any Coursing Meeting, shall be disqualified, and shall forfeit all entry money which may have been paid, and any stake or prize or share of any stake or prize won at such Meeting, and such entry money, stake, or prize, or share thereof, won by any dog so disqualified, shall be disposed of as provided by Rule 38 applicable to disqualification.

10. **PAYMENT OF ENTRY MONEY.**—All moneys due for nominations taken must be paid at or before the time fixed for closing the entry, whether the stakes fill or not, and although, from insufficient description or any other cause, the dogs named may be disqualified. No entry shall be valid unless the amount due for it has been paid in full. For all produce and other stakes, where a forfeit is payable, no declaration is necessary; the non-payment of the remainder of the entry money at the time fixed for that purpose is to be considered a declaration of forfeit. The Secretary is to be responsible for the entry money of all dogs whose names appear upon the card.

11. **ALTERATION OF NAME.**—If any subscriber should enter a greyhound by a different name from that in which it shall have last been entered to run in public, or shall have been registered in the Stud Book, he shall give notice of the alteration to the Secretary at the time of entry, and the Secretary shall place on the card both the late and the present names of the dog, and this must be done at all Meetings at which the dog runs throughout the Coursing season in which the alteration has been made. If notice of the alteration be not given the dog shall be disqualified. The new name must be registered before the dog can run under it.

12. PREFIX OF "Ns."—Any subscriber making an entry in a stake must prove to the satisfaction of the Stewards, if called upon by them to do so, that any greyhound entered by him, without the prefix of the word "Names," is *bona fide* his own property. If a subscriber enters a dog not his own property, without putting "ns" after his own name, the dog so entered shall be disqualified. Every subscriber shall, if requested, deliver in writing to the Secretary of the Meeting the name of the *bona fide* owner of the greyhound named by him, and this communication is to be produced should any dispute arise. No dog purchased or procured for a less time than the entire period still remaining of its public running, or belonging to two or more persons, unless they are declared confederates, shall be held as *bona fide* the property of a subscriber. A copy of the lease of a greyhound, registered or re-registered, must be lodged with the Keeper of the Stud Book at the time of such registration or re-registration. The names of confederates must be registered with the Keeper of the Stud Book—fee, 1s. for each name. Assumed names must also be registered with the Keeper of the Stud Book—fee, £5, 5s.

13. DEATH OF A SUBSCRIBER.—The death of a subscriber shall only affect his nominations if it occur before the draw, in which case, subject to the exceptions stated below, they shall be void, whether the entries have been made or not, and any money received for forfeits or stakes shall be returned, less the proportion of expenses when the amount has been advertised, and when the nominations rendered vacant are not filled by other subscribers. If he has parted with all interest in the nominations, and dogs not his property are entered and paid for, such entries shall not subsequently be disturbed. When dogs that have been entered in Produce Stakes change owners, with their engagements and with their forfeits paid, the then owner, if entitled to run them in those stakes, shall not be prevented from doing so by reason of the death of the former owner.

14. DRAW.—Immediately before the greyhounds are drawn at any Meeting, and before nine o'clock on every subsequent evening during the continuance of such Meeting, the time and place of putting the first brace of dogs into the slips on the following morning shall be declared. A card or counter bearing a corresponding number shall be assigned to each entry. These numbered cards or counters shall then be placed together and drawn indiscriminately. This classification, once made, shall not be disturbed throughout the Meeting, except for the purpose of guarding, or on account of byes.

15. GUARDING.—When two or more nominations in a stake are taken in one name, the greyhounds, if *bona fide* the property of the

same owner, shall be guarded throughout. This is always to be arranged, if possible, by bringing up dogs from below to meet those which are to be guarded. This guarding is not, however, to deprive any dog of a natural bye to which he may be entitled, either in the draw or in running through the stake. The withdrawal at any time of a dog from a stake shall not deprive a dog of a bye, accidental or natural, to which it would have been entitled had the withdrawn dog remained in the stake. Dogs, whose position has been altered in consequence of guarding or of byes, must return to their original position in the next round, if guarding does not prevent it.

16. BYES.—A natural bye shall be given to the lowest available dog in each round. No dog shall run a second such bye in any stake unless it is unavoidable. When a dog is entitled to a bye, either natural or accidental, his owner or nominator may run any greyhound he pleases to assist in the course, provided that in Sapling Stakes only a sapling may be used, and in Puppy Stakes none older than a puppy. But if it is proved to the satisfaction of the Stewards that no sapling or puppy respectively can be found to run an accidental bye, an older dog may be used. No dog shall run any bye earlier than his position on the card entitles him to do. The slip and the course in a bye shall be the same as in a course in which a decision is required, and the Judge shall decide whether enough has been done to constitute a course, or whether it must be run again, and in the latter case the Judge shall give the order. If at the commencement of any round in a stake, one dog in each course of that round has a bye, those byes shall not be run, but the dogs shall take their places for the next round as if the byes had been run. A bye must be run before a dog can claim the advantage of it. Byes or participation in winnings, through being entitled to byes, shall count as courses won.

17. SLIP STEWARD.—The Committee of an Open Meeting and the Members of a Club Meeting shall appoint, on the first evening of a Meeting, a Slip Steward, whose duty shall be to see that the right greyhounds, both in courses and byes, are brought to slips in their proper turn ; to report to the Stewards, without delay, any greyhound that does not come to the slips in time, and any act on the part of the slipper, nominators, or their representatives which he may consider should be brought to their knowledge. If a nominator or his representative should refuse to comply with the directions of the Slip Steward, or should use abusive or insulting or threatening language towards him, he shall be at once reported to the Standing Committee. A Slip Steward cannot be both Slip Steward and Flag Steward at any Coursing Meeting.

18. POSTPONEMENT OF MEETING.—A Meeting appointed to take

place on a certain day may, if a majority of the Committee and Stewards (if appointed) consider the weather unfit for coursing, be postponed from day to day; but if the running does not commence within the current week all nominations shall be void, unless it shall be especially stated otherwise in the conditions of the Meeting or in the conditions of a Special Stake or Prize at such Meeting, and the expenses shall be paid by the subscribers in proportion to the value of nominations taken by each. In the case of Produce Stakes, however, the original entries shall continue binding if the Meeting is held at a later period of the season.

19. **TAKING DOGS TO THE SLIPS.**—Every dog must be brought to the slips in its proper turn without delay under a penalty of £1. If absent for more than ten minutes (according to the report of the Slip Steward or of one of the Stewards) its opponent shall be entitled to claim the course, subject to the discretion of the Stewards, and shall in that case run a bye. If both dogs be absent at the expiration of ten minutes the Stewards shall have power to disqualify both dogs, or to fine their owners any sum not exceeding £5 each. The nominator is answerable for his dog being put into the slips at the right time and on the right side. No allowance shall be made for mistakes; but if the wrong dogs shall have run together in any round, and the mistake is not discovered until another round has been run, no objection can be made, and the course must stand as run. No dog shall be put into the slips for a deciding course until thirty minutes after its course in the previous round without the consent of its owner. (*See Rule 32.*)

20. **CONTROL OF DOGS IN SLIPS.**—The control of all matters connected with slipping the greyhounds shall rest with the Stewards of a Meeting. Owners or servants after delivering their dogs into the hands of the Slipper may follow close after them, but not so as to inconvenience the Slipper, or in any way interfere with the dogs, under a penalty of £1. Neither must they holloa them on while running, under the same penalty. An owner, trainer or attendant after putting his dog in slips may go forward to catch his dog, but must keep well clear of the line on the run of the hare, and must go forward on the same side as his dog is in the slips, except in such cases that the Stewards shall decide that it is advisable for both parties to go forward on the same side. Anyone infringing this rule may be fined a sum not exceeding £5 at the discretion of the Stewards. Any greyhound found to be beyond control in the slips may, by order of the Stewards, be taken out of the slips and disqualified.

21. **GREYHOUNDS OF SAME COLOUR TO WEAR COLLARS.**—When two greyhounds drawn together are of the same colour they shall each

wear a collar, and the owners shall be subject to a penalty of 10s. for non-observance of this rule. The colour of the collar shall be red for the left-hand side and white for the right-hand side of the slips. The upper dog on the card must be placed on the left hand, and the lower dog on the right hand of the slips.

22. **THE SLIP.**—The order to slip may be given by the Judge or the Slip Steward, or the Stewards of a Meeting may leave the slip to the sole discretion of the Slipper. The length of slip must necessarily vary with the nature of the ground, but should never be less than from three to four score yards, and must be maintained of one uniform length as far as possible throughout each stake.

23. **THE SLIPPER.**—If one greyhound gets out of the slips the Slipper shall not let the other go. In any case of slips breaking, and either or both dogs getting away in consequence, the Slipper may be fined a sum not exceeding £1 at the discretion of the Steward.

24. **DECISION OF THE JUDGE.**—The Judge shall be subject to the General Rules which may be established by the National Coursing Club for his guidance. He shall, on the termination of each course, immediately deliver his decision aloud, and shall not recall or reverse his decision on any pretext whatever after it has been declared; but no decision shall be delivered until the Judge is perfectly satisfied that the course is absolutely terminated.

25. **PRINCIPLES OF JUDGING.**—The Judge shall decide all courses upon the one uniform principle that the greyhound which does most towards killing the hare during the continuance of the course is to be declared the winner. The principle is to be carried out by estimating the value of the work done by each greyhound as seen by the Judge upon a balance of points according to the scale hereafter laid down, from which also are to be deducted certain specified allowances and penalties.

26. **THE POINTS OF THE COURSE ARE:—**

- (a) **Speed.**—Which shall be estimated as one, two or three points according to the degree of superiority shown. (*See definition below (a).*)
- (b) **The Go-bye.**—Two points, or if gained on the outer circle, three points.
- (c) **The Turn.**—One point.
- (d) **The Wrench.**—Half a point.
- (e) **The Kill.**—Two points, or, in a descending scale, in proportion to the degree of merit displayed in that kill which may be of no value.
- (f) **The Trip.**—One point.



GREYHOUND

HOUNDS

To face page 104

DEFINITION OF POINTS

(a) In estimating the value of speed to the hare the Judge must take into account the several forms in which it may be displayed, viz. :—

1. Where in the run up a clear lead is gained by one of the dogs, in which case one, two, or three points may be given, according to the length of lead, apart from the score for a turn or wrench. In awarding these points the Judge shall take into consideration the merit of a lead obtained by a dog which has lost ground at the start, either from being unsighted, or from a bad slip, or which has had to run the outer circle.
2. Where one greyhound leads the other so long as the hare runs straight, but loses the lead from her bending round decidedly in favour of the slower dog of her own accord, in which case the one greyhound shall score one point for the speed shown, and the other dog score one point for the first turn.
3. Under no circumstances is speed without subsequent work to be allowed to decide a course except where great superiority is shown by one greyhound over another in a long lead to covert.

If a dog, after gaining the first six points, still keeps possession of the hare by superior speed he shall have double the prescribed allowance for the subsequent points made before his opponent begins to score.

- (b) The Go-bye is where a greyhound starts a clear length behind his opponent, and yet passes him in a straight run, and gets a clear length before him.
- (c) The Turn is where the hare is brought round at not less than a right angle from her previous line.
- (d) The Wrench is where the hare is bent from her line at less than a right angle; but where she only leaves her line to suit herself, and not from the greyhound pressing her, nothing is to be allowed.
- (e) The Merit of a Kill must be estimated according to whether a greyhound by his own superior dash and skill bears the hare; whether he picks her up through any little accidental circumstances favouring him, or whether she is turned into his mouth as it were by the other greyhound.

(*f*) The Trip, or unsuccessful effort to kill, is where the hare is thrown off her legs, or where a greyhound flecks her but cannot hold her.

27. The following allowances shall be made for accidents to a greyhound during a course ; but in every case they shall only be deducted from the other dog's score :—

(*a*) For losing ground at the start, either from being unsighted or from a bad slip, in which case the Judge is to decide what amount of allowance is to be made on the principle that the score of the foremost dog is not to begin until the second has had an opportunity of joining in the course, and the Judge may decide the course or declare the course to be an undecided or no course as he may think fit.

(*b*) Where a hare bears very decidedly in favour of one of the greyhounds after the first or subsequent turns, in which case the next point shall not be scored by the dog unduly favoured, or only half his points allowed according to circumstances. No greyhound shall receive any allowance for a fall or an accident with the exception of being ridden over by the owner of the competing greyhound or his servant, provided for by Rule 31, or when pressing his hare, in which case his opponent shall not count the next point made.

28. PENALTIES :—

(*a*) Where a greyhound, from his own defect, refuses to follow the hare at which he is slipped, he shall lose the course.

(*b*) Where a dog wilfully stands still in a course, or departs from directly pursuing the hare, no points subsequently made by him shall be scored ; and, if the points made by him up to that time be just equal to those made by his antagonist in the whole course, he shall thereby lose the course ; but where one or both dogs stop with the hare in view, through inability to continue the course, it shall be decided according to the number of points gained by each dog during the whole course.

(*c*) If a dog refuses to fence where the other fences any points subsequently made by him are not to be scored ; but if he does his best to fence and is foiled by sticking in a meuse, the course shall end there. When the points are equal the superior fencer shall win the course.

29. **SECOND HARE.**—If a second hare be started during a course, and one of the dogs follow her, the course shall end there.

30. **GREYHOUND GETTING LOOSE.**—Any person allowing a greyhound to get loose, and join in a course which is being run, shall be fined £1. If the loose greyhound belong to either of the owners of the dogs engaged in the particular course, such owner shall forfeit his chance of the stake with the dog then running, unless he can prove, to the satisfaction of the Stewards, that he had not been able to get the loose greyhound taken up after running its own course. The course is not to be considered as necessarily ended when a third dog joins in.

31. **RIDING OVER A GREYHOUND.**—If any subscriber, or his servant, shall ride over his opponent's greyhound while running a course, the owner of the dog so ridden over shall (although the course be given against him) be deemed the winner of it, or shall have the option of allowing the other dog to remain and run out the stake, and in such case shall be entitled to half its winnings.

32. **NO COURSE.**—A "no course" is when by accident or by the shortness of the course the dogs are not tried together, and if one be then drawn the other must run a bye, unless the Judge, on being appealed to, shall decide that he has done enough work to be exempted from it. An undecided course is where the Judge considers the merits of the dogs equal, and if either is then drawn, the other cannot be required to run a bye; but the owners must at the time declare which dog remains in. (*See* Rule 34.) The Judge shall signify the distinction between a "no course" and an "undecided" by taking off his hat in the latter case only. After an "undecided" or "no course," if the dogs before being taken up get on another or the same hare, the Judge must follow, and shall decide in favour of one if he considers that there has been a sufficient trial to justify his doing so. A "no course" or an "undecided" may be run off immediately, if claimed on behalf of both dogs, before the next brace are put into the slips, or in case of "no course," if so ordered by the Judge, otherwise it shall be run again after the two next courses, unless it stand over till the next morning, when it shall be the first course run; if it is the last course of the day, fifteen minutes shall be allowed after both dogs are taken up.

33. **EXPLANATION BY JUDGE.**—The Judge shall render an explanation of any decision only to the Stewards of the Meeting if required, through them, before the third succeeding course, by the owner, or nominator, or representative of the owner or nominator of either of the greyhounds engaged in the course. The Stewards shall, if requested to do so, express their opinion whether the explanation is

satisfactory or not, and their opinion in writing may be asked for and published afterwards, but the decision of the Judge, once given, shall not be reversed for any cause.

34. **WITHDRAWAL OF A DOG.**—If a dog be withdrawn from any stake on the field, its owner, or someone having his authority, must at once give notice to the Secretary, or Flag, or Slip Steward. If the dog belongs to either of these officials the notice must be given to the other. When after a “no course” or an “undecided” one of the greyhounds has been officially drawn, and the dogs are again, by mistake, put into the slips and run a course, the arrangements come to shall stand, whatever the Judge’s decision may be, and all bets on the course shall be void.

35. **IMPUGNING JUDGE.**—If any subscriber, owner, or any other person proved to be interested, openly impugns the decision of the Judge on the ground, except by a complaint to the Stewards, according to Rule 33, he shall forfeit not more than £5, nor less than £2, at the discretion of the Stewards.

36. **STAKES NOT RUN OUT.**—When two greyhounds remain in for the deciding course, the stakes shall be considered divided if they belong to the same owner, or to confederates, and also if owner of one of the two dogs induces the owner of the other to draw him for any payment or consideration; but if one of the two be drawn without payment or consideration, from lameness, or from any cause clearly affecting his chance of winning, the other may be declared the winner, the facts of the case being clearly proved to the satisfaction of the Stewards. The same rule shall apply when more than two dogs remain in at the end of a stake which is not run out; and in case of a division between three or more dogs, of which two or more belong to the same owner, these latter shall be held to take equal shares of the total amount received by their owner in a division. When there is a compulsory division all greyhounds remaining in the class that is being run, even where one is entitled to a bye, shall take equal shares. The terms of any arrangement to divide winnings, and the amount of any money given to induce the owner of a dog to draw him, must be declared to the Secretary,

37. **WINNERS OF STAKES RUNNING TOGETHER.**—If two or more greyhounds shall each win a stake, and have to run together for a final prize or challenge cup, should they not have run an equal number of ties in their respective stakes, the greyhound which has run the smaller number of courses must run a bye, or byes, to put itself upon an equality in this respect with its opponent.

38. **OBJECTIONS.**—An objection to a greyhound may be made to

any one of the Stewards of a Meeting at any time before the stakes are paid over, upon the objector lodging in the hands of such Steward, or the Secretary, the sum of £5, which shall be forfeited if the objection proves frivolous, or if he shall not bring the case before the next Meeting of the National Coursing Club, or give notice to the Stewards previous thereto of his intention to withdraw the objection. The owner of the greyhound objected to must deposit equally the sum of £5, and prove the correctness of his entry. Expenses in consequence of an objection shall be borne as the National Coursing Club may direct. Should an objection be made which cannot at the time be substantiated or disproved, the greyhound may be allowed to run under protest, the Stewards retaining the winnings until the objection has been withdrawn, or heard and decided. If the greyhound objected to be disqualified, the amount to which he would otherwise have been entitled shall be divided equally among the dogs beaten by him; and if a piece of plate or prize has been added, and won by him, only the dogs which he beat in the several rounds shall have a right to contend for it.

39. **DEFAULTERS.**—No person shall be allowed to enter or run a greyhound in his own or any other person's name, or attend any Coursing Meeting, or the draw, dinner, or calling over of the card of any Meeting, who is a defaulter for either stakes, forfeits or bets, or for money due under an arrangement for a division of winnings, or for penalties regularly imposed for the infraction of Rules by the Stewards of any Meeting, or for any payment required by a decision of the National Coursing Club, or for subscriptions due to any Club entitled to have representatives in the National Coursing Club. As regards bets, however, this Rule shall only apply when a complaint is lodged with the Secretary of the National Coursing Club within six months after the bet becomes due. On receipt of such complaint the Secretary shall give notice of the claim to the person against whom it is made, with a copy of this Rule, and if he should not pay the bet, or appear before the next Meeting of the National Coursing Club, and resist the claim successfully, he shall be considered a defaulter.

40. **JUDGE OR SLIPPER INTERESTED.**—If a Judge or Slipper be in any way interested in the winnings of a greyhound or greyhounds, the owner and nominator in each case, unless they can prove satisfactorily that such interest was without their cognizance, shall forfeit all claim to the winnings, and the dog shall be disqualified; and if any nominator or owner of greyhounds shall give, offer, or lend money, or anything of value to any Judge or Slipper, such owner or nominator shall not be allowed to run dogs in his own or any other person's name during any subsequent period that the National Coursing Club may decide upon.

41. DISCREDITABLE CONDUCT.—Any person who is proved to the satisfaction of the National Coursing Club to have been guilty of any fraudulent or discreditable conduct in connection with Coursing, or any other recognized sport, may, in addition to any pecuniary penalty to which he may be liable, be declared incapable of running or entering a greyhound in his own or any other person's name during any subsequent period that the National Coursing Club may decide upon; and any dogs under his care, training, management, or superintendence shall be disqualified during such subsequent period.

42. BETS.—All bets upon an undecided course shall stand unless one of the greyhounds be drawn. All bets upon a dog running further than another in the stake shall be p.p., whatever accident may happen. Bets upon a deciding, as upon every other course, are off if the course is not run. Long odd bets shall be void when made after the draw, unless the greyhound the bet refers to shall run one course in the Stake, other than a bye, after the bet is made. In the case of a meeting, or of a coursing prize, where the nominations are not void in consequence of postponement, all long odds bets made before the first draw shall hold good, but long odds bets made after any draw, except the draw under which the stake is run, shall be void.

43. BETS ON STAKES DIVIDED.—Where money has been laid against a dog winning a stake, and he divides it, the two sums must be put together and divided in the same proportion as the value of the stakes.

WINNERS OF THE WATERLOO CUP, &c. FROM THE COMMENCEMENT.

1836 (8 dogs).

Cup..... Mr Lynn ns (Lord Molyneux's) r b *Milanie*, by Milo out of Duchess, won.
Mr Norris's be d *Unicas*, by Hornet out of Fly, ran up.

1837 (16 dogs).

Cup..... Mr Jebb ns (Mr Stanton's) bk b *Fly*, by Tommy Roads out of Fly, won.
Mr Speed's bk w d, *Dr Fop*, by Bob Logic out of Spinner, ran up.

Derby { Mr Ball's be d *Bugle*, by Bachelor out of Nimble, won.
Stakes... { Mr Lynn's r d *Topper* (ped. not given), ran up.

1838 (32 dogs).

Cup..... Mr Ball's be d *Bugle*, by Bachelor out of Nimble, won.
Mr Hamilton ns (Mr Jebb's) r b *Risk* (late *Lalage*), by Luff out of Minikin, ran up.
Altcar { Lord Stradbroke's bk d *Madman*, by Woodsman, dam unknown, won.
Stakes... { Mr Bennet's r d *Rocket*, by Streamer out of Mors, ran up.

1839.

- Cup..... Mr Robinson's r b *Empress*, by Tramp out of Nettle, won.
 Mr Blundell's r b *Brenda*, by Topper out of Belinda, ran up.
- Altcar { Sir H. Campbell's bk w b *Camarine*, by Spring out of Snow, won.
 Stakes... { Mr P. Houghton's r d *Erico*, by Bob Logic out of Lady
 Grafton, ran up.

1840.

- Cup..... Mr Easterby's bk d *Earwig*, by Hailstone, out of Pastime, won.
 Mr Easterby's bk d *Emperor*, by Helenus out of Fly, ran up.
- Altcar { Lord Stradbroke's bk d *Marquis*, by Madman out of
 Stakes... { Margery, won.
 Mr Swan's bk b *Maiden Queen*, by Colonel out of Linnet,
 ran up.

1841.

- Cup..... Mr King's r d *Bloomsbury*, by Redcap, dam by Walton—
 sister to Preserve, won.
 Mr E. N. Kershaw ns (Mr Brooke's) be w d *Saddler*, by
 Old Sailor out of Fanny, ran up.
- Altcar { Lord Eglinton's w bd d *Waterloo*, by Dusty Miller out of
 Purse.... { Exotic, won.
 Mr P. Houghton's r d *Tyrant*, by Rocket out of Stella, ran up.

1842.

- Cup..... Mr Deakin's f w d *Priam*, by Emperor out of Venus, won.
 Mr Bradley's f d *Barrier*, by Blueman out of Lady, ran up.
- Altcar { Lord Stradbroke's bk b *Minerva*, by Livid out of Margery,
 Stakes... { won.
 Mr Hey ns (Mr Craven's) f b *Carmelite*, by Sultan out of
 Cara, ran up.

1843.

- Cup..... Mr G. Pollok's f d *Major*, by Moses out of Melon, won.
 Mr N. Slater's r d *Solon*, by Merchant out of Myrtle, ran up.
- Altcar { Mr J. Bake's r d *Zurich*, by Skimmer out of Zorilla, won.
 Stakes... { Mr N. Slater's w r d *Sandy*, by Bachelor out of Venus, ran up.

1844.

- Cup..... Mr N. Slater's r w b *Speculation*, by Sandy out of Enchan-
 tress, won.
 Mr Clarke's bk w b *Dressmaker*, by Hector out of Lill, ran up.
- Altcar { Dr Brown's w bd b *Cantrip*, by Waterloo out of Clara, won.
 Stakes... { Mr Wynn's be d *Briton*, by Emperor out of Knavery, ran up.

1845.

- Cup..... Mr Jebb ns (Mr Temple's) bk b *Titania*, by Driver out of
 Zoe, won.
 Mr B. Smith's bk d *Sherwood*, by Kenwigs out of Sarah, ran up.
- Altcar { Mr Fowler's r w b *Kizzie*, by King Cob out of Bashful, won.
 Stakes... { Mr Nash's bk b *Cruiskeen*, by Damon out of Crucifix, ran up.

1846.

- Cup Mr Barge ns (Mr Sampson's) bk w d *Harlequin*, by Emperor out of Lady, won.
 Mr O'Grady's r d *Oliver Twist*, by Sadek out of Sanctity, ran up.
- Altcar { Mr Eden ns (Mr Orrell's) bk d *Original*, by Hyson out of Empress, won.
 Stakes... { Mr Craven's f d *Canino*, by Blacklock out of Carmelite, ran up.

1847.

- Cup Lord Sefton's r d *Senate*, by Sadek out of Sanctity, won.
 Mr W. Webb's rb *Flirt*, by Marquis out of Coquette, ran up.
- Altcar { Mr Jebb ns (Mr Temple's) w be b *Tricksy*, by Scythian out of Zoe, won.
 Stakes... { Mr P. Taylor ns (Mr Mounsey's) f b *Hannah*, by Buff out of Catlowdie, ran up.

1848.

- Cup Sir St G. Gore's bk w b *Shade*, by Nonchalance out of Margery, won.
 Mr B. Robinson's bk w b *Smut*, by Sam out of Lucy, ran up.
- Altcar { Mr J. Blackburn's be d *Blueskin*, by Snowball out of Scut, won.
 Stakes... { Mr Cruso's bk b *Cricket*, by Luck's All out of Brisk, ran up.

1849.

- Cup Sir St G. Gore's bk d *Magician*, by King Cob out of Magic, won.
 Mr Temple ns bk d *Forward*, by Foremost out of Catch-'em, ran up.
- Altcar { Mr Cooke's r b *Crenoline*, b Senate out of Brenda, won.
 Stakes... { Mr Loder's bk d *Czar*, by Foremost out of Catch-'em, ran up.

1850.

- Cup Mr G. F. Cooke's f w b *Cerito* (late Lucy Long), by Lingo out of Wanton, won.
 Mr G. Gregson's r t d *Neville*, by Scot out of Grace, ran up.
- Altcar { Mr Ridgway's bk b *Lady Mary*, by Highflyer out of Mayflower, won.
 Stakes... { Mr E. Taylor's bd d *Davie Gellatley*, by Grimaldi out of Lady Peel, ran up.

1851.

- Cup Mr W. Sharpe's f d *Hughie Graham*, by Liddesdale out of Queen of the May, won.
 Lord Sefton's bk d *Staymaker*, by Foremost out of Dressmaker, ran up.
- Altcar { Mr G. Gregson's w f d *Dalton*, by Spanker out of Lady Easby, won.
 Stakes... { Mr G. F. Cooke's f w b *Cerito*, by Lingo out of Wanton, ran up.

1852.

- Cup Mr G. F. Cooke's f w b *Cerito*, by Lingo out of Wanton, won.
 Mr G. J. Henderson's f d *Larriston*, by Liddesdale out of Hannah, ran up.
 Altcar { Mr C. Randell ns (Mr Lawrence's) bk d *Lopez*, by
 Stakes... { Vraye Foy out of Elf
 { Mr Corbet's bk w d *Cricketer*, by Old Nick out of } divided.
 Castle

1853.

- Cup Mr G. F. Cooke's f w b *Cerito*, by Lingo out of Wanton, won.
 Mr G. Gregson's bk w b *Movement*, by Foremost out of Fairy, ran up.
 Altcar { Mr J. Bake's r d *Zurich*, by Liddesdale out of Bride, won.
 Stakes... { Mr J. Blundell ns be w b *Crucifix*, by Mawworm out of
 Lady Maria, ran up.

1854.

- Cup Lord Sefton's bk d *Sackcloth* by Senate out of Cinderella, won.
 Mr G. J. Henderson's f d *Larriston*, by Liddesdale out of Hannah, ran up.
 Altcar { Mr J. Bake ns (Mr Cass's) bk w t b *Restless*, by Dutchman
 Stakes... { out of Alice, won.
 { Mr J. Knowles's r d *Physician*, by Figaro out of Shuttle, ran up.

1855.

- Cup Mr T. Brocklebank ns (Mr Jefferson's) r d *Judge*, by John Bull out of Fudge, won.
 Mr Campbell's w b *Scotland Yet*, by Wigan out of Veto, ran up.
 Altcar { Mr Buist's f d *Ben Lomond*, by Hughie Graham out of
 Stakes... { Syringa, won.
 { Mr D. Bailey's r d *Brandy*, by Burgundy out of Credit, ran up.

1856.

- Cup Mr J. Bake ns (Mr W. Peacock's) f b *Protest*, by Weapon out of Pearl, won.
 Mr T. Brocklebank ns (Mr Jefferson's) r d *Judge*, by John Bull out of Fudge, ran up.
 Altcar { Mr W. G. Borron's bk d *Black Cloud*, by Blue Light out of
 Stakes... { Frolic, won.
 { Mr J. Gibson's r w d *Rover*, by Sam out of Sybil, ran up.

1857 (64 dogs).

- Cup Mr W. Wilson's w f d *King Lear*, by Wigan out of Repentance, won.
 Capt. Spencer's r d *Sunbeam*, by John Bull out of Fleur-de-Lys, ran up.

- Purse..... Mr J. F. Armistead's r d *Albatross*, by Larriston out of Lady of the Lake, won.
 Mr W. Long's r d *David*, by Motley out of Wanton, ran up.
- Plate..... Mr B. H. Jones's bk b *Jailbird*, by Junta out of Humming Bird, won.
 Mr Bartlett ns (Mr Hammond's) r d *Goldfinder*, by Vortex out of Teresa, ran up.

1858.

- Cup Mr S. Cass's f d *Neville*, by Autocrat out of Catherine Hayes, won.
 Mr E. Dixon, jun.'s, r d *Deacon*, by Ben out of Buttress, ran up.
- Purse..... Mr J. F. Armistead's r d *Albatross*, by Larriston out of Lady of the Lake, won.
 Mr W. Carr's f w d *Dr Dodd*, by Neville out of Capacity, ran up.
- Plate..... Mr Daintree's f w b *Debonaire*, by Locomotive out of Magic, won.
 Mr J. L. Thomas's bk b *Lady Watford*, by Larriston out of Consideration, ran up.

1859.

- Cup Mr J. Jardine's bk b *Clive*, by Judge out of Mœris }
 Mr J. Gordon ns (Mr J. Jardine's) bk d *Selby*, by } divided.
 Barrator out of Ladylike }
- Purse..... Mr Randell ns (Mr Jebb's) bk b *Omega*, by Sackcloth out of Cowrie, won.
 Mr W. G. Borron's f d *Bohemian*, by Ptarmigan out of Curliana, ran up.
- Plate..... Mr H. Jefferson's bd w b *Java*, by Judge out of Moll Troll, won.
 Mr W. P. Hammond ns (Mr Randell's) bk d *Regan*, by Barrator out of Riot, ran up.

1860.

- Cup Mr J. Blackstock's r b *Maid of the Mill*, by Judge out of Bartolozzi, won.
 Lord Sefton's bd b *Sampler*, by Skyrocket out of Stitch, ran up.
- Purse..... Mr J. Jardine ns bd w d *Orator*, by Wigan out of Lady Bell, won.
 Mr Hyslop ns (Mr G. Gregson's) r w d *Ramathan Roy*, by Judge out of Governess, ran up.
- Plate..... Mr T. L. Boote's f b *Wild Wave*, by Larriston out of Fly, won.
 Mr D. W. Brown's r d *Beranger*, by Judge out of Grisette, ran up.



"THOUGHTLESS BEAUTY." WINNER OF THE WATERLOO CUP IN 1895

HOUNDS

To face page 114

1861.

- Cup Mr J. Hyslop ns (Mr I. Campbell's) w d *Canaradzo*, by Beacon out of Scotland Yet, won.
 Mr J. Spinks's f d *Sea Rock*, by Willow out of Fanny, ran up.
 Purse..... Mr P. Callan ns (Mr Gray's) bk w d *Barney Williams*, by Hurkaru out of Leda, won.
 Mr J. Dunlop's r w d *Cardinal York*, by Jacobite out of Forest Queen, ran up (1).
 Plate..... Lord Sefton's bd b *Sampler*, by Skyrocket out of Stitch, won.
 Mr C. Jardine ns (Mr J. Jardine's) r d *Faldonside*, by Jeffrey out of Ladylike, ran up.

1862.

- Cup Mr J. Challander ns (Mr Gregson's) bk b *Roaring Meg*, by Beacon out of Polly, won.
 Mr T. Brocklebank's bk w b *Bowfell*, by Judge out of Rhapsody, ran up.
 Purse..... Mr J. Spinks's w b *Sea Pink*, by Beacon out of Scotland Yet, won.
 Mr W. Long ns (Mr Racster's) .bk b *Romping Girl*, by Bedlamite out of Redwing, ran up.
 Plate..... Mr Russell ns (Mr Fitzmaurice's) bk d *Othello*, by Hawk out of Marionette, won.
 Mr H. B. Irving ns (Mr J. Jardine's) r d *Faldonside*, by Jeffrey out of Ladylike, ran up.

1863.

- Cup Mr T. T. C. Lister's w bk b *Chloe*, by Judge out of Clara, won.
 Mr H. Haywood's bk b *Rebe*, by Regan out of Lady, ran up.
 Purse..... Lord Grey de Wilton's bd w d *Glendower*, by David out of Gauzewing, won.
 Mr D. Bateman ns (Mr Spinks's) r b *Sea Girl*, by Seacombe out of Sea Flower, ran up.
 Plate..... Mr C. Randell ns (Mr Price's) bd w d *Patent*, by David out of Lady Clara, won.
 Mr W. G. Borron ns (Mr Dunlop's) r d *Dunoon*, by Daring out of Creeping Kate, ran up.

1864.

- Cup Mr T. Williams ns (Dr Richardson's) w bk d *King Death*, by Canaradzo out of Annoyance, won.
 Mr H. Haywood's bk b *Rebe*, by Regan out of Lady, ran up.
 Purse..... Mr I. Campbell's bk d *Calabaroono*, by Cardinal York out of Canopy, won.
 Lord Binning's f w d *Donald*, by Johnny Armstrong out of Dora, ran up.
 Plate..... Earl of Eglinton's bk d *Rainbow*, by Cardinal York out of Maid of Lincoln, won.
 Col. Bathurst ns (Mr J. Jardine's) bk d *Owersby*, by Selby out of Mazourka, ran up.

1865.

- Cup Col. Goodlake ns (Mr G. Carruthers's) r or f b *Meg*, by Terrona out of Fanny Fickle, won.
 Mr J. Knowles ns (Mr Kennedy's) w d *King Tom*, by Canaradzo out of Kitty Nicholson, ran up (1).
 Purse... Mr J. Blackstock's r d *Beckford*, by Bridegroom } divided.
 out of Finesse }
 Mr. H. Haywood's bk b *Rebe*, by Regan out of Lady }
 Plate.... Dr Richardson's w bk d *King Death*, by Canaradzo out of Annoyance, won.
 Mr Green's bk b *Gaiety*, by Seagull out of Gem, ran up.

1866.

- Cup Mr Gorton ns (Mr Foulkes's) bk w d *Brigadier*, by Boreas out of Wee Nell, won.
 Mr J. Johnston ns (Mr F. Johnston's) bd w b *Fieldfare*, by Dalgig out of Woodpigeon, ran up.
 Purse.... Mr W. S. Garnett's f b *Goldenhair*, by David out of Racketty Hoppicker, won.
 Lord Sefton's f b *Scapegrace*, by Brewer out of Scandal, ran up.
 Plate.... Col. Bathurst ns (Lord Garlies's) w b *Godiva*, by Canaradzo out of Good Omen, won.
 Mr N. Saxton's bk d *Samuel*, by David out of Patch, ran up

1867.

- Cup Mr E. W. Stocker ns (Mr W. J. Legh's) w bd b *Lobelia*, by Sea Foam out of Lilac, won.
 Mr W. Long ns (Mr Haywood's) bk b *Royal Seal*, by Patent out of Rumping Girl, ran up.
 Purse.... Mr Bartholomew ns (Mr Swinburne's) bk b *Shy Girl*, by Patent out of Rumping Girl, won.
 Mr G. F. Wise's be w b *Woman in Blue*, by Railroad out of Malibran, ran up.
 Plate Lord Stair ns (Mr Thompson's) f w b *Princess Royal*, by Cardinal York out of Meg o' the Mill, won.
 Mr W. S. Garnett ns (Lord Lurgan's) r b *Lady Cecil*, by Crocco out of Cinoloe, ran up.

1868.

- Cup Lord Lurgan's bk w d p *Master M'Grath*, by Dervock out of Lady Sarah, won.
 Mr C. Randell ns (Mr T. T. C. Lister's) w bd d p *Cock Robin*, by King Death out of Chloe, ran up.
 Purse.... Mr J. Spinks ns (Mr C. R. Saunders's) f b p *Jane Anne*, by Bonus out of Belle of Eamont, won.
 Mr Jas. Johnston's w bd b *Justitia*, by Belligerent out of Veritas, ran up.
 Plate.... Lord Stair ns (Mr Hyslop's) bk w d *Strange Idea*, by Cardinal York out of High Idea, won.
 Mr R. Jardine's w db d *Improver*, by Patent out of Cordelia, ran up.

1869.

- Cup Lord Lurgan's bk w d *Master M'Grath*, by Dervock out of Lady Sarah, won.
 Mr R. Paterson ns (Mr Blanshard's) r b *Bab at the Bowster*, by Boanerges out of Mischief, ran up.
- Purse..... Mr T. Brocklebank's bk b *Bacchante*, by Reveller II. out of Briar, won.
 Mr F. Bartholomew's w bd b *Borealis*, by Patent out of Misfortune, ran up.
- Plate..... Hon. C. C. Molyneux ns (Lord Sefton's) r b *Salvia*, by Racing Hopfactor out of Sweet Briar, won.
 Mr R. B. Carruthers's bk b *Cataclysm*, by Patent out of Lady Stormont, ran up (1).

1870.

- Cup Mr J. Spinks's r b p *Sea Cove* (late Covet), by Strange Idea out of Curiosity, won.
 Lord Binning's r w d p *Bendimere*, by Cauld Kail out of Bergamot, ran up.
- Purse..... Mr F. Johnston ns (Mr J. Briggs's) f b p *Bed of Stone*, by Portland out of Imperatrice, won.
 Mr S. Swinburne's bd b *S. S.*, by Ridley out of Susan Blue Hat, ran up (1).
- Plate..... Mr W. J. P. Watson's bk w d p *Waywarden*, by Cauld Kail out of Charmer, won.
 Mr Jas. Dunlop's bk d p *Pretender*, by Cardinal York out of Little Rebel, ran up.

1871.

- Cup Lord Lurgan's bk w d *Master M'Grath*, by Dervock out of Lady Sarah, won.
 Mr W. H. Punchard's f d p *Pretender*, by Ewsdale out of Peeress, ran up.
- Purse..... Mr W. J. Legh's w bk b p *Latest News*, by Telegram out of Leaf, won.
 Mr R. Jardine's w f b p *Favourita*, by Improver out of Amy, ran up.
- Plate..... Mr J. Briggs's f b *Bed of Stone*, by Portland out of Imperatrice, won.
 Mr Jas. Dunlop's r w d *Duke of York*, by Cardinal York out of Lovebird, ran up.

1872.

- Cup Mr J. Briggs's f b *Bed of Stone*, by Portland out of Imperatrice, won.
 Mr W. Eltringham ns (Mr A. Smith's) bk d p *Peasant Boy*, by Racing Hopfactor out of Placid, ran up.
- Purse . . . Mr S. C. Lister's w bk b *Chameleon*, by King Death out of Chloe, won.
 Mr J. Lawton's bk w d *Liberty*, by King Death out of Miss Halsall II., ran up.

Plate..... Mr B. H. Jones's r b *Jewess*, by Ewesdale out of Tamar, won.
 Mr C. J. Chesshyre ns (Mr W. H. Clark's) r b *Bessie*, by
 Young Wonder out of Electra, ran up.

1873.

Cup Mr R. Jardine's r w b p *Muriel*, by Fusilier out of Portia,
 won.
 Mr J. Blackstock ns (Mr A. Smith's) bk d *Peasant Boy*, by
 Racing Hopfactor out of Placid, ran up.
 Purse..... Mr G. Bell Irving ns (Mr R. Jardine's) w f b p }
Joan, by Improver out of Amy
 Mr R. B. Carruthers's bk t d *Contango*, by } divided (2).
 Cashier out of Bab at the Bowster
 Plate..... Mr S. Swinburne ns (Mr W. J. Dunbar, jun.'s) f b *Royal*
Mary, by Grand Warden out of Rachel, won.
 Mr G. W. Mould ns (Mr J. R. Thompson's) bk w d p
Tyrant, by Cock Robin out of Tackle, ran up.

1874.

Cup Mr C. Morgan's r d *Magnano*, by Cauld Kail out of Isoline,
 won.
 Mr W. H. Massey ns (Mr Martelli's) f d *Surprise*, by Sir
 William out of Modesty, ran up.
 Purse..... Mr R. Jardine's r w b *Muriel*, by Fusilier out of }
 Portia
 Mr J. Gibson ns (Mr R. Jardine's) r b *Progress*, } divided.
 by Improver out of Amy
 Plate..... Capt. Ellis ns (Mr E. Gibson's) bd w b p *Gallant Foe*, by
 Don Antonio out of Meggie Smith, won.
 Mr W. J. M'Haffie ns (Mr R. Jardine's) w b *White Slave*,
 by Improver out of Emma Snow, ran up.

1875.

Cup Mr W. F. Hutchinson's bk w b *Honeymoon*, by Brigadier
 out of Hebe, won.
 Mr J. Cunningham's r or f d p *Corby Castle*, by Silver Fox
 out of Bet, ran up (1).
 Purse..... Mr T. M. Goodlake's r d *Gilderoy*, by Crossfell out of Gaudy
 Poll, won.
 Earl of Stair's f d p *Stradivarius*, by Master Birnie out of
 Swivel, ran up.
 Plate..... Mr A. Allison ns (Mr D. J. Paterson's) bk d p *Lord Glendyne*,
 by Smuggler out of Fanny Warfield, won.
 Mr G. F. Wise's bk w b *Wild Norah*, by Master Frederick
 out of Wee Lassie, ran up.

1876.

Cup Mr R. M. Douglas's bk d *Donald*, by Master Burleigh out
 of Phcenix, won.
 Mr D. J. Paterson's bk d *Lord Glendyne*, by Smuggler out
 of Fanny Warfield, ran up.



A BRACE OF GREYHOUNDS

- Purse..... Mr T. M. Goodlake ns (Mr R. F. Wilkins's) f b p *Wellingtonia*, by Bluebeard out of Miss Cheerful, won.
 Viscount Molyneux ns (Lord Sefton's) f w b p *Suspense*, by Botheration out of Jolly News, ran up.
 Plate..... Mr W. D. Deighton ns (Mr T. D. Hornby's) r b p *Handicraft*, by Improver out of Robina, won.
 Dr F. Richardson's w d p *Midnight*, by Minute Gun out of Burning Bush, ran up.

1877.

- Cup Mr R. F. Wilkins ns (Mr R. Gittus's) f w b p *Coomassie*, by Celebrated out of Queen, won.
 Mr J. Briggs's bk b p *Braw Lass*, by Blackburn out of Happy Lass, ran up.
 Purse..... Mr R. B. Carruthers's bk b p *Change*, by Contango out of Hannah, won.
 Mr R. M. Douglas ns (Mr H. Watson's) f d p *Hornpipe*, by Light Cavalry out of Humming Bee, ran up.
 Plate Mr D. J. Paterson's bk d p *Poacher*, by Peasant Boy out of Nancy, won.
 Mr T. L. Reed ns (Mr G. Carruthers's) f b *Coupland Lass*, by Cashier out of Canzonette, ran up.

1878.

- Cup Mr H. F. Stocken ns (Mr T. Lay's) f w b *Coomassie*, by Celebrated out of Queen, won.
 Lord Fermoy's bk w b p *Zazel*, by Master Frederick out of Genevra, ran up.
 Purse..... Mr J. Trevor ns (Mr Southan's) w bk b p *Adelaide*, by Beverley out of Alice Hawthorne, won.
 Mr T. L. Boote's be b p *Scorn's Repose*, by Willie Galwey out of Mischieff, ran up.
 Plate Mr B. Colman ns (Mr J. S. Postle's) bk w b p *Palm Flower*, by Countryman, dam by Willie Wyllie, won.
 Mr W. G. Borron's be d *Banner Blue*, by Black Knight out of Hit or Miss, ran up.

1879.

- Cup Mr H. G. Miller's bk w d p *Misterton*, by Contango out of Lina, won.
 Mr R. B. Carruthers's bk w b p *Commerce*, by Contango out of Chameleon, ran up.
 Purse Mr R. M. Douglas's bk b *Dear Erin*, by Contango out of Death, won.
 Mr S. J. Binning's r w d *Boy o' Boys*, by Bendimere out of Lively Bess, ran up.
 Plate..... Mr C. E. Marfleet's bk b *Musical Box*, by Handel out of Spice Box, won.
 Mr G. Darlinson ns (Mr S. Sewell's) f b *Shepherdess*, by C.P.B. out of Safranza, ran up.

1880.

- Cup Mr R. B. Carruthers ns (Earl of Haddington's) r w d *Honeywood*, by Cavalier out of Humming Bird, won.
 Mr J. Hinks's f w d *Plunger*, by Backwoodsman out of Gretna, ran up (1).
- Purse..... Mr A. Wilkinson ns (Mr S. Sewell's) f w b *Shepherdess*, by C.P.B. out of Safranza, won.
 Mr W. D. Deighton ns (Mr J. G. Dixon's) be w d *Dalcardo*, by Diactieus out of Miss Nicholson, ran up.
- Plate..... Mr R. M. Douglas's be b *Debonnaire*, by Master Sam out of Death, won.
 Mr S. J. Binning ns (Mr J. Trevor's) bd b *Truthful*, by Great Gable out of Warwickshire Lass, ran up.

1881.

- Cup Mr H. G. Miller ns (Mr J. S. Postle's) w bd b *Princess Dagmar*, by Ptarmigan out of Gallant Foe, won.
 Mr T. Brocklebank's bd d *Bishop*, by Barleycorn out of Daffodil, ran up.
- Purse..... Mr W. Smith's f d *Sapper*, by Master Avon out of Wide-awake, won.
 Mr C. E. Marfleet's bk w d *Memnon* (late Sir Richard), by Caliph out of Polly, ran up.
- Plate..... Capt. Ellis ns (Mr N. Dunn's) r d *Dodger*, by Fugitive out of Ellen Johnson, won.
 Mr F. Gibson ns (Mr A. Coke's) be d *M'Pherson*, by Master Sam out of Annie M'Pherson, ran up.

1882.

- Cup..... Capt. Ellis ns (Mr T. Hall's) bk w b p *Snowflight*, by Botha Park out of Curiosity, won, after an undecided and a no course.
 Earl of Haddington's bk b *Hornpipe*, by Bedfellow out of Hornet, ran up.
- Purse.... Mr J. G. Winder ns (Mr A. Coke's) be d *M'Pherson*, by Master Sam out of Annie M'Pherson, won.
 Mr W. Reilly's w bd b *Princess Dagmar*, by Ptarmigan out of Gallant Foe, ran up.
- Plate..... Mr L. Pilkington's be b *Debonnaire*, by Master Sam out of Death, won.
 Mr M. Morrison ns (Mr J. Shelton's) f or r b *Maid Marian*, by Woodman out of Reckless, ran up.

1883.

- Cup Mr G. J. Alexander ns (Mr W. Osborne's) r b *Wild Mint*, by Haddo out of Orla, won.
 Mr W. D. Deighton ns (Mr W. Reilly's) bk w b *Snowflight*, by Bothal Park out of Curiosity, ran up.

- Purse..... Mr R. B. Carruthers ns (Mr A. Vines's) f w d *Markham*, by Banker out of Pall Mall, won.
 Mr Shelton's f or r b *Maid Marian*, by Woodman out of Reckless, ran up.
- Plate..... Mr H. Haywood's r b *Rota*, by Balfe out of Ruby }
 Mr H. G. Miller's r or f d p *Manager*, by } divided.
 Misterton out of Devotion }

1884.

- Cup Mr C. E. Marfleet ns (Mr J. Mayer's) w bk d *Mineral Water*, by Memento out of Erzeroum, won.
 Mr R. B. Carruthers ns (Mr R. F. Gladstone's) bk d p *Greentick*, by Bedfellow out of Heartburn, ran up.
- Purse..... Mr J. Evans's bk t d p *Escape*, by Hubert out of Evangeline }
 Mr R. Jardine's bk b *Gladys*, by Misterton out of Annie M'Pherson } divided.
- Plate..... Mr F. Gibson ns (Mr J. R. Marshall's) r w t d p *Cocklaw Dene*, by Lindahl, out of Blaewearie, won.
 Mr J. G. Winder ns (Mr J. T. Crossley's) bk d p *Cyril*, by Hubert out of Meg, ran up.

1885.

- Cup Mr E. Dent's bd w b p *Bit of Fashion*, by Paris out of Pretty Nell }
 Mr J. Hinks ns (Mr C. Hibbert's) bd b p *Miss Glendyne*, by Paris out of Lady Glendyne } divided.
- Purse Mr T. L. Reed ns (Mr C. Murless's) r w d p *Masdeu*, by Merchantman out of Ella, won.
 Mr W. Smith ns (Mr A. J. S. Dixon's) w bk b *Danseuse* (late Morven), by Miner out of Netley Burn, ran up.
- Plate..... Mr F. Gibson ns (Mr J. R. Marshall's) r w t d *Cocklaw Dene*, by Lindahl out of Blaewearie, won.
 Mr J. Trevor ns (Mr E. M. Crosse's) r w b *Che Sara*, by Cui Bono out of Fair Rosalind, ran up.

1886.

- Cup..... Mr R. B. Carruthers ns (Mr C. Hibbert's) bd d *Miss Glendyne*, by Paris out of Lady Glendyne, won.
 Mr L. Pilkington's f b *Penelope II.*, by MacPherson out of Stitch in Time, ran up.
- Purse..... Mr C. W. Lea's bk w d p *Let Go*, by Clyto out of Stylish Lady, won.
 Mr M. Morrison ns (Mr G. Bell Irving's) bk b p *Iris*, by Coleraine Diamond out of Iron Cable, ran up.
- Plate..... Mr R. V. Mather's f w d p *Meols Hero*, by M'Pherson out of Meols Vixen, won.
 Mr E. Dent's bd w b *Bit of Fashion*, by Paris out of Pretty Nell, ran up.

1887.

- Cup..... Mr R. F. Gladstone's bk d *Greater Scot*, by MacPherson out of Madge
 Mr T. D. Hornby's r d p *Herschel*, by MacPherson out of Stargazing II. } divided.
- Purse..... Mr G. J. Alexander's bk d p *Alec Ruby*, by Alec Halliday out of Rubia, won.
 Lord Wodehouse ns (Mr J. J. Stedman's) bd d *Brixton*, by Misterton out of Hertha, ran up.
- Plate..... Mr T. P. Hale ns (Mr M. G. Hale's) bk b *Happy Omen*, by Millington out of Radiant
 Mr T. Graham's bk w b p *Harpstring*, by Glenlivet out of Polly } divided.

1888.

- Cup..... Mr L. Pilkington's bk w d *Burnaby*, by Be Joyful out of Baroness, won.
 Mr W. Smith ns (Col. J. T. North's) be d p *Duke MacPherson*, by MacPherson out of Prenez Garde, ran up.
- Purse..... Mr C. Hibbert's bd b *Miss Glendyne*, by Paris out of Lady Glendyne, won.
 Mr J. Trevor ns (Mr W. H. Smith's) r d *Donald Windland*, by Warpath out of Dewy Shamrock, ran up.
- Plate..... Mr T. E. Fiske ns (Mr H. Wansborough's) bk w d *Winfarthing*, by Millington out of Match Girl, won.
 Mr R. V. Mather's bk d p *Meols Simon*, by Greentick out of Meols Vixen, ran up.

1889.

- Cup... .. Col. J. T. North's bd d p *Fullerton*, by Greentick out of Bit of Fashion
 Mr J. Badger ns (Col. J. T. North's) bd p } divided.
Troughend, by Greentick out of Toledo
- Purse..... Earl of Sefton ns (Mr E. Huntington's) bd w b p *Highness*, by Harpoon out of Hannah Lightfoot, won.
 Mr A. Brisco ns (Mr L. Pilkington's) f b p *Pins and Needles*, by Britain Still out of Stitch in Time, ran up.
- Plate..... Sir R. Jardine's r d *Glenogle*, by Mentor out of Glencoe, won.
 Capt. M'Calmont ns (Col. J. T. North's) bk w d *Dingwall*, by MacPherson out of Cenone, ran up.

1890.

- Cup..... Col. J. T. North's bd d *Fullerton*, by Greentick out of Bit of Fashion, won.
 Mr J. Trevor ns (Mr N. Dunn's) f b *Downpour*, by Britain Still out of Haytime, ran up.
- Purse..... Mr S. Swinburne's w bk d *Knockninny Boy*, by Acides out of Wandering Kate II., won.
 Mr J. H. Salter ns (Col. J. T. North's) bd d *Troughend*, by Greentick out of Toledo, ran up.



GREYHOUND, "TEXTURE." WINNER OF THE WATERLOO CUP IN 1864

HOUNDS

To face page 124

Plate.. .. Mr T. Graham's r w d *Jim o' the Hill*, by Pinkerton out of Glenblossom, won.
Major Graham Edwardes ns (Mr E. M. Cross's) bd b *Coca Water*, by Greentick out of Madeline, ran up.

1891.

Cup..... Col. J. T. North's bd d *Fullerton*, by Greentick out of Bit of Fashion, won.
Mr G. F. Fawcett's be b *Faster and Faster* (late Pride of Oakfield), by Northern Express out of Pride of Belmont, ran up.
Purse..... Mr E. Davey ns (Col. J. T. North's) bk d p *Simonian*, by Greentick out of Bit of Fashion, won.
Major H. Holmes's bk d *Hobart Town*, by Puddletown out of Houssa, ran up.
Plate..... Marquis of Anglesey ns (Mr J. Russel's) bd d p *Rhymes* (late Times), by Greentick out of Tinsel, won.
Mr A. H. Jones's bk b *Jolly Mystery*, by Misterton out of Mermaiden, drawn.

1892.

Cup..... Col. J. T. North's bd d *Fullerton*, by Greentick out of Bit of Fashion, won.
Mr G. F. Fawcett's w bd d *Fitz Fife*, by Royalty II. out of Bude Light, ran up (1).
Purse..... Sir W. C. Anstruther ns (Mr J. Russel's) bd d p *Red River*, by Rival Chief out of Lizzie Taylor, won.
Capt. M'Calmont ns (Messrs Smyth's) be d *Sir Sankey*, by Greentick out of Toledo, ran up.
Plate..... Mr N. Dunn ns (Col. J. T. North's) bk d *Simonian*, by Greentick out of Bit of Fashion, won.
Mr W. H. Smith (S.) ns (Mr J. B. Thompson's) bk d *Lecturer*, by Greentick out of Madeline, ran up.

1893.

Cup..... Mr R. L. Cotterell ns (Mr J. Coke's) w bd d *Character*, by R. Haliday out of Mermaiden, won.
Mr T. Baxter's bd w d *Button Park*, by Jester out of Brampton, ran up.
Purse..... Mr W. A. Smyth's be d *Sir Sankey*, by Greentick out of Toledo, won.
Mr W. Ingram's bd w d *Ivan the Great*, by Greater Scot out of Rota, ran up.
Plate..... Mr W. Thompson's bd w d p *Tasmania*, by Re-
storer out of Tinsel
Marquis of Anglesey's f d *Annihilator*, by Her-
schel out of Annie Laurie II. } divided.

1894.

- Cup..... Count Stroganoff's r b *Texture*, by Herschel—Tinsel, won.
 Capt. Ellis ns (Mr M. Fletcher's) w f d p *Falconer*, by Herschel—Fine Sport, ran up.
- Purse..... Mr M. G. Hale's bk d *Happy Relic*, by Herschel }
 —Happy Omen } divided.
 Mr L. Pilkington's w bd d p *Pennegant*, by Jim
 o' the Hill—Glenesk }
- Plate..... Mr W. Thompson's bd w d *Tasmania*, by Restorer—Tinsel }
 Mr M. Fletcher's bd w b p *Free Kick*, by Herschel—Fine Sport } divided.

1895.

- Cup..... Mr R. B. Carruthers ns (Mr L. Pilkington's) f b *Thoughtless Beauty*, by Herschel—Thetis, won.
 Capt. Ellis ns (Messrs Fawcett's) r d p *Fortunâ Favente*, by Herschel—Fair Future, ran up.
- Purse..... Mr F. Watson's f d p *Word of Honour*, by Herschel—Watchful Duchess }
 Mr A. F. Pope ns (Messrs Fawcett's) bk d *Fertile Field*, by Townend—Honey Deer } divided.
- Plate..... Mr J. Gilbody ns (Mr M. Fletcher's) f d *Forum*, by Herschel—Fine Sport, won.
 Mr C. E. Marfleet ns (Mr J. D. M'Callum's) r d *Ruby Red*, by Restaurant—Touchwood II., ran up.

1896.

- Cup..... Messrs Fawcett's r d *Fabulous Fortune*, by Herschel—Fair Future, won.
 Mr W. H. Smith (K.) ns (Mr W. Smyrl's) f d *Wolf Hill*, by Carr's Green—The Pug, ran up.
- Purse..... Mr H. Brocklebank ns (Sir Thomas Brocklebank's) w f d p *Bièrre*, by Branston—Barbon, won.
 Mr C. Murless's bk w d p *Brummagem Man*, by Birmingham—Mischievous, ran up.
- Plate..... Mr J. Russel's bk b *Reception*, by Restorer—Real Lace, won.
 Mr W. Osborne ns (Mr T. Holmes's) bd d *Gallant*, by Young Fullerton—Sally Millburn, ran up.

1897.

- Cup..... Mr T. P. Hale ns (Mr T. Holmes's) bd d *Gallant*, by Young Fullerton—Sally Millburn, won.
 Mr H. Hardy's f d *Five by Tricks*, by Freshman—Full Hand, ran up.
- Purse..... Mr M. G. Hale's bk d p *Happy Sight*, by Happy Gazer—Teutonic, won.
 Mr J. Coke ns (Mr R. F. Gladstone's) f b p *Gauze*, by Herschel—Myrtle Green, ran up.

- Plate..... Mr R. V. Mather ns (Mr T. Graham's) bk d *Under the Globe*, by Mullingar—Sea Serpent, won.
Marquis of Anglesey ns (Duke of Leeds's) bk b p *Laurel Leaves* (l. Black Nell), by Epicharmus—Elaine, ran up.

1898.

- Cup..... Mr J. Trevor ns (Mr H. Hardy's) f w b *Wild Night*, by Freshman Fine Night, won.
Duke of Leeds's bk d *Lang Syne*, by Boss o' the Shanty—Belle of Soham, ran up.
- Purse..... Mr J. Russel's w bk d p *Real Turk*, by Falconer }
—Real Lace } divided.
Mr J. Coke's w r b p *Cissy Smith*, by Falconer }
—Mrs Mac }
- Plate..... Mr T. Baxter ns (Mr D. Graham's) bd b *Genetive*, by Norway—Glenetive, won.
Mr R. W. Jewell ns (Mr H. F. Simonds's) w bk d *Silver Lace* (l. Roscommon), by Restorer—Real Lace, ran up.

1899.

- Cup..... Mr J. B. Thompson ns (Mr E. Rogers's) bk d *Black Fury*, by Mad Fury—Mischief X., won.
Col. J. M. M'Calmont ns (Duke of Leeds's) bd b p *Lapal*, by Fortunâ Favente—Nopal, ran up.
- Purse..... Mr T. Quihampton's bk d p *Quite Bright*, by Falconer—Fine Night }
Mr W. H. Smith's (K.) bk b p *Countess Udston*, } divided.
by Ruby Red—Maroo }
- Plate..... Sir W. Ingram ns (Mr J. Wilson's) bk d p *Wild Oats*, by Sir Sankey—Bessie Mountford, won.
Mr J. Coke ns (Mr L. Pilkington's) be d *Prescot*, by Coca Wine—Purissima, ran up.

1900.

- Cup..... Mr J. H. Bibby ns (Messrs Fawcett's) bk t b *Fearless Footsteps*, by Fabulous Fortune—Fille de Feu, won.
Duke of Leeds's f b *Lavishly Clothed*, by Fabulous Fortune—Irish Queen, ran up.
- Purse..... Mr A. Brisco ns (Mr T. Graham's) bd b p *Gutta-percha*, by Young Fullerton—Jeannie Milburn }
Mr R. W. B. Jardine ns (Sir R. Jardine's) f b p } divided.
Long Glass, by Stirrup Cup—M. L. }
- Plate..... Mr J. B. Thompson's r d p *Red Fury*, by Fabulous Fortune—Killmode, won.
Sir T. Brocklebank's bk d *Border Song*, by Border Story—Badalona, ran up.

1901.

- Cup.. ... Mr J. H. Bibby ns (Messrs Fawcett's) bk t b *Fearless Foot-steps*, by Fabulous Fortune—Fille de Feu, won.
 Mr F. Watson ns (Mr P. Clark's) bk d p *Cleughbrae*, by Under the Globe—Tiny Polly, ran up.
- Purse..... Mr W. Osborne ns (Messrs Aston and Spruce's) r b *Agile Spurt*, by Gallant—Glen Isla, won.
 Mr A. T. Newbold's w bk b p *New Tripper*, by Falconer—Holiday, ran up.
- Plate Mr R. Anderton ns (Messrs Fawcett's) bd d }
Father o' Fire, by Fabulous Fortune—Fille de Feu } divided.
 Mr J. Coke's w bk b *Cousin Mary*, by Fabulous Fortune—Grey Mary }

1902.

- Cup..... Mr G. F. Fawcett's bd w d *Farndon Ferry*, by Fiery Furnace—Fair Florence, won.
 Mr W. Ward's r d p *Wartnaby*, by Mellor Moor—Tiny Polly, ran up.
- Purse..... Col. Bruce ns (Mr W. Smyrl's) f d *Star of Antrim*, by Wolf Hill—Sweet Merrie, won.
 Mr R. F. Gladstone's w d *Millions*, by Fabulous Fortune—Melpomene, ran up.
- Plate..... Mr H. Brocklebank's bk b *Brokerage*, by First Fortune—Follow Me } divided.
 Sir R. Jardine's r w d *Vindicator*, by King }
 Crispin—Regain }

1903.

- Cup..... Mr J. H. Bibby ns (Messrs Fawcett's) bd d *Father Flint*, by Fiery Furnace—Fanny Faithful, won.
 Mr A. F. Pope ns (Mr L. Pilkington's) bk d p *Paracelsus*, by Under the Globe—Thoughtless Beauty, ran up.
- Purse..... Mr W. S. Simpson's f d *Strange Mystery*, by Under the Globe—Whitacre, won.
 Mr L. Nicholls ns (Mr I. C. Glover's) bk d *Bonnie Bairn*, by Under the Globe—Fear to Fall, ran up.
- Plate..... Col. M'Calmont, M.P., ns (Duke of Leeds's) }
 bd b p *Lonely Star*, by Fiery Furnace—Lapal } divided.
 Mr A. T. Newbold's r d *Mallory*, by Fabulous Fortune—Elaine }

1904.

- Cup..... Mr G. Darlinson ns (Mr E. Herbert's) r d p *Homfray*, by Fabulous Fortune—Killmode, won.
 Mr R. H. Whitworth ns (Mr H. T. Michels's) bk b p *Minchmuir*, by Wet Day—Kaffir Queen, ran up.
- Purse..... Mr A. F. Pope ns (Mr L. Pilkington's) r d *Priest-law*, by Mellor Moor—Thoughtless Beauty } divided.
 Mr A. T. Newbold's r d *Mallory*, by Fabulous Fortune—Elaine }



GREYHOUND, "DARK-SCENT." WINNER OF MANY FIRST PRIZES
AND SPECIALS

HOUNDS

To face page 126

Plate..... Duke of Leeds's bd b *Lonely Star*, by Fiery
Furnace—Lapal
Sir T. Brocklebank ns (Mr L. Pilkington's) r d p } divided.
Prince Plausible, by Boswell — Thoughtless
Beauty

1905.

Cup.... . Mr W. H. Pawson's bd d *Pistol II.*, by Fighting Fire—
Thessaly, won.
Mr A. F. Popen's (Mr L. Pilkington's) r d *Prince Plausible*,
by Boswell—Thoughtless Beauty, ran up.
Purse..... Mr E. M. Crosse ns (Mr Dudley-Ward's) f d p }
The Lion (l. Forest Lion), by Pateley Bridge } divided.
—Forest Fairy
Mr G. F. Fawcett's r w d *Fecht Fair*, by Fiery
Furnace—Fearless Footsteps
Plate..... Mr S. S. Death's w bk d p *Dividend Deferred*,
by Grampus—Dark Dame } divided.
Mr W. H. Smith ns (Mr R. Dunn's) f d p }
Clocklute, by Blackheath—Countess Udston

1906.

Cup..... Mr H. Hardy's f d *Hoprend*, by Forgotten Fashion—Heir-
loom, won.
Mr S. S. Death's w bk d *Dividend Deferred*, by Grampus—
Dark Dame, ran up.
Purse..... Mr R. J. Hannam ns (Mr A. Forster's) f b }
Formula, by Pateley Bridge—Forest Fairy } divided.
Mr W. Ward ns (Mr T. Graham's) bd b p *Game* }
'Un, by Tara—Glenvera
Plate Mr H. Birkbeck's bd b p *Neolithic*, by Father
Flint—Fillagree } divided.
Mr R. H. Whitworth ns (Mr H. Hardy's) bd d p }
Howtown, by Father Flint—Heirloom

1907.

Cup..... Sir R. W. Buchanan-Jardine's f d p *Long Span*, by Pateley
Bridge out of Forest Fairy, won.
Mr A. D. Gausson's bd d *Glenbridge*, by Spytfontein out of
Get Along, ran up.
Purse.. .. Earl of Sefton's r b *Shake a Fut*, by Father Flint }
out of Quadrille } divided.
Col. J. M. M'Calmont, M.P., ns (Duke of
Leeds's) r d *Lottery*, by Fiery Furnace—Luck's
Reward
Plate..... Hon. C. B. Hanbury ns (Mr S. Hill Wood's) bk }
d *Mandini*, by Gallant out of Kaffir Queen } divided.
Mr F. Alexander ns (Mr H. Birkbeck's) f d p }
Bachelor's Acre, by Farndon Ferry out of
Fillagree

1908.

- Cup..... Mr E. Hulton's r b *Hallow Eve*, by Pateley Bridge out of Forest Fairy, won.
 Earl of Sefton's bk b p *Silhouette*, by Strange Mystery out of Slish, ran up.
- Purse..... Mr R. H. Whitworth ns (Mr H. Hardy's) bk }
 d p *Hydrus*, by Wartnaby out of Nid Nodding } divided.
 Mr R. Hislop's bk b *Skiddaw*, by Farndon Ferry out of The Nigger }
- Plate..... Mr D. Graham ns (Mr W. Graham's) bd d *Glacier*, by Wartnaby out of Gravity, won.
 Mr E. Dobson ns (Mr A. Brown's) bd d p *Royal Flint*, by Father Flint out of Royal Gem, ran up.

1909.

- Cup... .. Messrs J. E. & S. M. Dennis's r d *Dendraspis*, by Wartnaby—Gleneva, won.
 Mr G. Mayall n s (Mr E. H. Sikes's) r f d p *Such a Sell*, by Father Flint—Fan o' the Forest, ran up.
- Purse..... Mr R. F. Gladstone's r f d *Garpool*, by Father Flint—Glen Garpool }
 Duke of Leeds's bd b *Liquid Fuel*, by Fighting Fire—Lemon Squash } divided.
- Plate..... Sir R. W. B. Jardine's f d *Long Span*, by Pateley Bridge—Forest Fairy }
 Mr G. F. Fawcett's bd d *Face the Foe*, by Father Flint—Forest Fury } divided.

1910.

Heavy Weather won the Cup.
Solway Ferry and *Sincere* divided the Purse.
Hostage and *Back to the Land* divided the Plate.

1911.

Jabberwack won the Cup.
Full Steam and *Slyph* divided the Purse.
Boanerges and *Strange Idea* divided the Plate.

1912.

Tide Time won the Cup.
Fly to the Front and *Rostram* divided the Purse.
Saracen and *Grey Muzzle* divided the Plate.

CHAPTER VII

THE BLOODHOUND

THIS ancient variety of hound has been in existence for centuries, being mentioned by many of the oldest writers on matters appertaining to the dog. Dr John Caius, physician to Queen Elizabeth, wrote as follows: "For whether the beast beyng wounded, doth not withstanding enjoye life, and escapeth the handes of the huntesman, or whether the said beast, beyng slain, is conveyed clenly out of the parcke (so that there be some signification of bloud there), these dogges with no lesse facilitie and easinesse, their aviditie and greedinnesse can disclose and betray the same by smelling, applying to their pursute agilitie and nimblenesse without tediousnesse, for which consideration of a singular specialitie they deserved to be called Sanguinariii or Bloodhounds." Dr Caius further said that these hounds would cross water and identify the man they were hunting, in spite of the fact that he might be amongst a number of other people. Somervile speaks of a deep-flewed hound used for tracking man. Cox, writing towards the end of the seventeenth century, refers to the Bloodhound as being closely allied to

the Scottish sleuthhound, though larger and as being of more variable colours, likewise different in their music. It has been recorded that both Wallace and Bruce were hunted through mountain and forest by Bloodhounds. Turbervile, writing in 1575, refers to the Bloodhound in the following terms: "These are the hounds which the abbots of St Hubert have always kept in honour and remembrance of the Saint which was a hunter with St Eustace. Whereupon we may conceive that by the grace of God all good huntsmen shall follow them into Paradise."

Gervase Markham, who wrote about the beginning of the seventeenth century, speaks of these hounds in the following terms: "The baie-coloured hounds have the second place for goodnesse and are of great courage, ventring far and of a quicke scent, finding out very well the turnes and windings, almost of the nature of the white ones save only that they do not endure the heat so well, neither the treadings of the horsemen, and yet, notwithstanding they be more swift and hot, and fear neither cold nor water, they runne surely, and with great boldnesses, commonly loving the stagge more than any other beast; but they make no account of hares. . . . It is true that they be more headstrong and harde to reclaime than the white, and put men to more paine and travaill about the same. The best of the fallow sort of dogges are those which are of a brighter haire,



BLOODHOUND

drawing more unto the colour of red, and having therewithall a white spot in the forehead, or in the necke, in like manner those which are all fallow; but such as incline to a light yellow colour, being graie or blacke spotted are nothing worth; such as are trussed up and have dewclaws are good to make Bloodhounds. . . . The white and baie dogs are not fit for any but kings and great lords because they only hunt the hart and not all sorts of game." In his various writings are frequent references to the Talbot, and Markham recommends "the black hound, the black tann'd, or he that is all liver-hued or milk-white which is the true Talbot for the string or liam, for they do most delight in blood and have a natural inclination to hunt dry foot."

The same author refers to a class of hounds as common to mountainous districts, distinguishing these from the lighter built "grissel'd and shag-haired" hounds. His description of a true Talbot hound is as follows: "Him which hath a round, big, thick head, with a short nose uprising, and large open nostrels, which shews that he is of a goode and quicke scent, his eares exceeding large, thin and down-hanging, much lower than his chaps, and the flews of his upper lips almost two inches lower than his nether chaps, which shews a merry deep mouth, and a loud ringer, his back strong, and streight, yet rather rising, than inwardly yeelding, which shews

much toughnesse and indurance; his fillets would be thick and great, which approves a quick gathering up of his legs without paine, his huckle-bones round and hidden, which shews he will not tyer, his thighs round, and his hams streight, which shews swiftnesse; his taile long and rush-grown, that is big at the setting on, and small downward, which shews a perfect strong chine, and a good winde; the haire under his belly hard and stiffe, which shews willingnesse and ability to endure labour in all weathers, and in all places; his legs large and leane, which shews nimbleness in leaping or climbing; his foot round, high-knukled and well-claw'd, and a dry hard soale, which shews he will never surbait; and the general composure of his body so just and even that no level may distinguish whether his hinder or fore-part be the higher; all of which shew him of much ability, and that in his labour he will seldom find any annoyance."

Daniel, writing in his *Rural Sports*, published during the year 1812, refers to the Bloodhound as being black and tan in colour, and of compact muscular form; the upper part of the face broad, gradually contracting to the nose, with wide nostrils and large, pendulous ears.

In the breeding of Bloodhounds doubtless many out-crosses have been introduced for the purpose of improving the stamina of these hounds; but in spite of all this there is a general consensus that the

Bloodhound, at any rate during youth, is not of the most robust order, especially in those strains where prolonged in-breeding has been carried on. At the present time the Bloodhound is not in any particular demand in Great Britain, though in the States and certain continental cities these hounds are extensively employed by the police for tracking criminals, as the Bloodhound is essentially a man-tracker, and its special avocation is to hunt after a stranger much in the same manner as any other dog will hunt after its master. For practical purposes they have not been found of much use in Great Britain; nevertheless it is necessary to train a hound to hunt along a cold line of scent, say one of three or four hours' duration, otherwise the utility of these dogs becomes reduced to a minimum. It must be borne in mind that scent varies with the state of the weather, the locality, and many other conditions, all of which have to be considered when Bloodhounds are employed in tracking man. The Bloodhound has a low scenting power, but is extremely patient and persevering in working out a cold line of scent, though, of course, these hounds are able to work best on a line of scent that has been undisturbed, and this is one of the reasons why they are of so little practical utility in town.

Admirers of the breed principally use these hounds for companionship, but for this purpose there are many

other breeds superior to them. A typical Bloodhound should weigh about 100 lbs., be either black or tan, red and tan or tawny in colour; many of these hounds have white on the breast, feet, etc., but this is not considered detrimental unless too plainly marked. The height at shoulder ranges from 25 to 28 inches, bitches being a trifle less, but any tendency towards legginess or the converse is distinctly objectionable. The skin should be thin, and very loose, though such looseness is most marked in the region of the head and neck, and in these situations it must hang in folds. The general conformation is that typical of a hound, and the hound-like characteristics, plus the special physiognomy of the Bloodhound, constitute the main points looked for by judges of the breed. The back and the loins ought to be strong, of medium length; the stern carried gaily, the chest deep, the fore and hind quarters clothed with powerful muscles, and the body or "middle-piece" well coupled fore and aft. What may be termed the slackness of these hounds is more apparent than real, being due to the looseness of the skin. The elbows must be carried close to the chest wall, the joints broad but clean, the forearms, pasterns and first and second thighs consist of plenty of bone and substance together with well-arched toes and compact feet. If a Bloodhound is defective in any of the foregoing qualifications, or has "cow-

hocks," it ought not to stand in the prize list, in spite of the fact that competition in Bloodhound classes is, at the present time, usually very poor. The head and its carriage are most decidedly the leading features in a Bloodhound, and judges are particularly keen on quality—and by quality we mean facial expression and anatomical conformation—in this region. In these hounds it is impossible for the head to be too heavily wrinkled, the skin falling in folds over the forehead and sides of the face, more especially when the dog has his head to ground. The occipital dome is particularly high, narrow and long, but free from wrinkle; the foreface is extensive and heavily wrinkled, more especially above the eyes and at the sides of the face. The deeply-set eyes and the heavily-wrinkled eyebrows, together with the large amount of haw visible, form a very striking appearance, at once expressive of wisdom, benevolence and dignity—a trio of features observed in no other breed. The "flews" or cheeks must be deep; the lips square in front; the nostrils broad and black in colour; the nose long; whilst the ears must be very long, set on low down, and hanging in graceful folds at the sides of the head. The tips of the ears approach each other owing to their length and pose of the ear; fineness of texture not only as regards the hair, but also of the skin covering the ears, constitutes a point of beauty. Beneath the neck the skin is

so loose that it forms a well-developed dewlap. Temperament and action are also worthy of notice. Regarding the first-named docility is the rule; and as to the second, it must be said that these hounds are very active—in fact, their activity is equal to that of most other breeds.

Kennel Management of Bloodhounds.—It seems almost needless to say that the main principles in the general management of these hounds comprise due attention to the general cleanliness of the kennels, ventilation, and to proper grooming. Although not customary, there is no doubt that where a small kennel of bloodhounds is kept the adult dogs should in winter time wear a flannel coat of sufficient thickness to keep the coat down. In the warmer months of the year this can be substituted by a lighter covering. The hounds must be exercised night and morning, and fed either once or twice a day, but adult dogs thrive very well if fed only once a day, preferably in the evening, say at six o'clock. Horseback exercise is very suitable for keeping these hounds fit. Puppies should be trained as early as possible, beginning from the fourth to the sixth month, at which age the young hounds ought to be fed three times a day. If there is the slightest sign of ill-health amongst any of the puppies those which are out of sorts should be removed from the healthy stock at once and isolated. Bloodhound

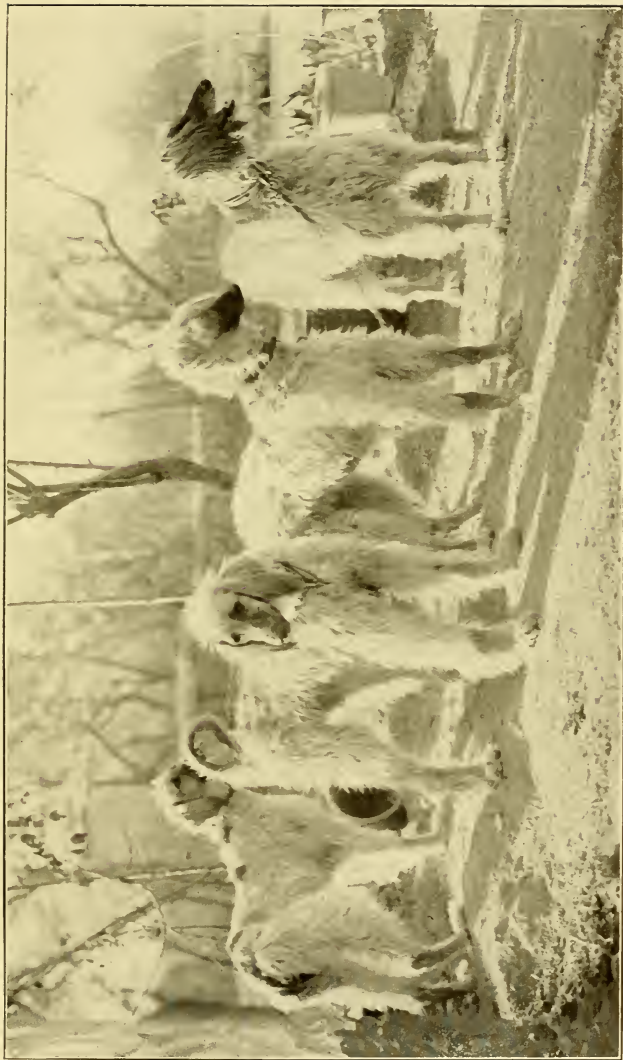
puppies commonly have distemper severely, although this does, to a large extent, depend upon the fact as to whether the parents have come from a vigorous strain, and one in which in-breeding has not been carried to excess. There can be little doubt but this has a modifying influence in that terrible canine scourge, distemper. Bloodhounds are liable to the same accidents and diseases that are incidental to other dogs, but perhaps the commonest troubles are eczema, worms, and, in young dogs, distemper. There is a popular but stupid fallacy, stupid because it arises through want of better understanding, that cows' milk leads to the production of worms in dogs. The author is not aware of a single entozoon exclusively affecting the ox that has any existence in the dog, and even if the dog did form a host for the larval forms of internal parasites of the ox, the milk of the cow would certainly not be the channel for the transmission of such. Puppies can be reared either on cows' milk or any of the artificial foods suitable for such purposes.

CHAPTER VIII

THE AFGHAN GREYHOUND

THESE Oriental hounds in many respects resemble the British type of Greyhound, but the long, loose hair on the body and limbs creates characteristics at once distinctive, to say nothing of the quaint appearance presented by the Asiatic hound. Within the last few years numerous specimens have been benched at the Kennel Club's Show in London, but one of the most typical hounds shown was Zardin, the colour of which is almost white, with a black muzzle. These hounds slightly differ in colour, some being reddish-fawn, others almost white, with shadings. Zardin was brought from Seistan, in Afghanistan, and was shown at Zuetta, prior to being imported into England.

The stuffed specimen in the Natural History Museum at South Kensington is that of Shahzada, formerly the property of the late Mr Whitbread. Both Shahzada and Afghan Bobs—the property of Mr Cary Barnard—have not that profusion of coat so striking in Mr Banff's Zardin. In the group of Mr Banff's hounds, taken in India, it will be noticed that in each member there is the abundance



A GROUP OF AFGHAN GREYHOUNDS

HOUNDS

To face page 138

of coat and long hair upon the limbs, with the exception of certain portions below the limbs (knees) and hocks. Therefore the deduction is that profusion of coat constitutes the essential qualification of the Afghan hound, and as such must be taken into consideration when judging the Asiatic Greyhounds. When measured at the shoulder the height should not be less than 27 inches, nor exceed 29 inches. The tail is curled upwards when the dog is at attention, the tip being on a level with the croup. There is an abundance of feather on it. Neck long and strong, and carried well up, supporting a long, lean head, with a top-knot of hair, blending with that on the ears, which should be large and heavily-feathered, whilst the carriage ought to be close to the side of the cheek.

The nose, jaws, sides of the face and a portion of the skull are covered by smooth hair of a darker colour. Eyes dark, piercing, with little evidence of "stop" in front of them. Most of the length of the head lies between the eyes and nostrils, the latter being rather small in comparison with the size of these hounds. The chest is deep but not broad, and the shoulders must not be loaded with muscle, especially in front. A deep chest, very strong arms, forearms, pasterns and toes; a strong back and loins, together with long, big-muscled first and second thighs, are qualities most needful in these Oriental hounds,

which doubtless hunt more by sense of sight than that of smell. The slightly-arched loins and the tucked-up appearance at the flank are favourable to speed. The author does not think that these hounds will ever become of much utility in Great Britain; nevertheless it is advisable to encourage the improvement of a breed, no matter whether British or foreign in its origin. In the *Indian Kennel Gazette* of October 1906 the following extract appears in relation to Mr Banff's Zardin, and as the description of this hound may be accepted as typical of the class, the writer has taken the liberty of copying the paragraph referred to, that will doubtless be of service to those interested in these Asiatic Greyhounds.

“Zardin is a light-coloured hound, almost white, with a black muzzle. He has a very long punishing jaw of peculiar power and level mouth; his head resembles that of a Deerhound, but with skull oval and prominent occiput, surmounted by a top-knot; ears fairly large, well-feathered, and hanging to side of head rather than carried to front. He has a keen, dark eye, and little or no stop. A long, strong, clean neck, fairly well arched, running in a nice curve to shoulder, which is long and sloping and well laid back; his back is strong, loin powerful and slightly arched. He, as well as all this class of hound, falls away towards stern, which is set on low, almost destitute of hair, and usually carried low.

He is well ribbed, tucked up under loin; forelegs straight and strong and covered with hair; great length between elbow (which is straight) and ankle. The forefeet are long, fairly broad, and covered with long hair. Not too narrow in brisket, which is deep, with good girth of chest. Hind quarters very powerful, furnished with plenty of muscle; great length between hip and hock, which is low and strong, a fair bend in stifle, hind feet not so long as fore feet, but fairly wide and well protected with hair. The hind quarters, flanks, ribs and fore quarters are well clothed with protective hair, thick and fine in texture, showing some undercoat. The coat on the back is shorter.

“ He is a very handsome, strong and active-looking hound, and can, I think, be regarded as a typical specimen. The characteristics are that he is smart and upstanding, a combination of speed and power. Great length of head, length and breadth of feet, which should be well protected with hair, and graceful outline.

“ The height of Zardin, I should say, is about 28 inches, or nearly so.”

HARRIERS

Hare-hunting is a very ancient sport, there being records that such was indulged in by Xenophon several centuries before the birth of Christ, but as to

what type of hounds were used at those periods there is not any reliable data. It is certain that hunting the hare is a much older sport than that of fox-hunting, the former being indulged in not only on account of the excellency of the pastime, but likewise for the utility of the quarry hunted. Peter Beckford, writing in 1796, refers at considerable length to hare-hunting, and so does Nimrod. Beckford says: "You should never exceed twenty couple in the field. The fewer hounds you have the less you foil the ground." He also says: "The hounds that are most likely to show sport are those between the great slow-hunting Harrier and the little Fox Beagle. The former are too dull, too heavy and too slow; the latter too lively, too light and too fleet. My hounds are a cross of both these kinds, in which it is my endeavour to get as much bone and strength in as small a compass as possible. I bred many years and an infinity of hounds before I could get what I wanted. They who like to rise early have amusement in seeing the hare trail to her form. It is of great service to hounds. It also shows their goodness to the huntsmen more than any other hunting, as it discovers to him those who have the most tender noses. But I confess I seldom judge it worth while to leave my bed a moment sooner on that account." Nimrod says that the modern Harrier bears no greater resemblance to the one in use fifty years back



HARRIER

HOUNDS

To face page 142

than the hunter of the present day to that ridden by our grandfather. In fact, he is now nothing less than a Foxhound in miniature. Further on he says that "the qualities of the Foxhound and the Harrier are as opposite as their form; the one delighting to dwell upon the scent, the other a little inclined perhaps to the other extreme." The old-fashioned type of Harrier was evidently far too slow, and the production of the improved Harrier resulted from the introduction of Foxhound blood from some of the principal packs. Hare-hunting with Harriers is distinctly inferior to that of hunting the fox. It is a much lower form of sport, and fox-hunters look upon sportsmen that follow a pack of Harriers with an air of superiority. That hare-hunting with Harriers is a tolerably favourite pastime is supported by the fact that there are about eighty-five packs in England and Wales, forty packs in Ireland, but only one in Scotland, the last named being founded by the late Marquis of Linlithgow. One of the oldest packs of Harriers is the Pennistone, established many centuries since, consisting of thirteen couples of 22- to 24-inch pure Harriers, or hounds of the English type. The Halcombe Harriers is another very old pack, having been established about 200 years, and during a century and a half of that time these hounds were trencher-fed. It is composed of twenty couples of 22-inch Old English Harriers.

The Rosendale Harriers comprises a pack of nineteen couples of 22-inch Stud Book Harriers, and it is stated that these hounds have been bred in the kennels for several centuries. Harriers are in appearance very similar to the Foxhound, though smaller, but a considerable portion of packs comprise indifferent specimens of the Foxhound; some will weigh 50 lbs. only, others probably 80 lbs. Take, for instance, the Welton Dale Pack, which consists of twenty-two couples of 20-inch dwarf Foxhounds. Again the Trethall Harriers is composed of fifteen couples of 17-inch Harriers; the average height for a Harrier may be accepted as 20 inches, or from 19 to 21 inches.

There is an association of Masters of Harriers which has its annual show at Peterborough, the hounds being judged by capable masters upon lines similar to those laid down for Foxhounds. A deep chest, big-boned fore and hind limbs, well-sprung ribs, a short muscular back and loins, together with neatly-turned stifle, hock and pastern joints, in combination with houndlike qualities throughout, constitute the essential characteristics of a typical Harrier. The following are the names of the principal packs of Harriers in England and Wales:

Aldenham
Sir John Amory's
Anglesey

Ashburton
Ashdown Park
Ashford Valley

Aspull	Axe Vale
Bentley	Bexhill
Brighton	Boddington
Biggleswade	Bath and County
Cambridgeshire	Craven
Cotley	Colne Valley
Crick Howell	Cumberwell Brampton
Dove Valley	Downham
Dunstan	Dart Vale
Drax	Fowey
Lady Gifford's	Epping Forest
Hailsham	Halham and Eccleshall
Haldon	Mr Hawkins's
Henham	Holcombe
High Peak	Isle of Man
Mr Lethbridge's	West Kent
Kirkham	Mr Lloyd Price's
North Norfolk	North Montgomery-
Minehead	shire
North Tyne	Nettlefold
Oakleigh Park	Pennistone
Pendle Forest	Peppard Farmers
Ripley and Knaphill	Mr Pryse Rice's
Rosendale	Quarme
Rochdale	Ross
Rockwood	Romley Marsh
Lady Slade's	Southpool
Seavington	Sparkford Vale
Stannington	East Suffolk
Sheffield	Tanetside *
Taunton Vale	Windermere
Weston	Vale of Lune
Trethill	Weald of Kent

* A very old pack.

Wells Subscription Pack
West Street

Welton Dale
Wirril

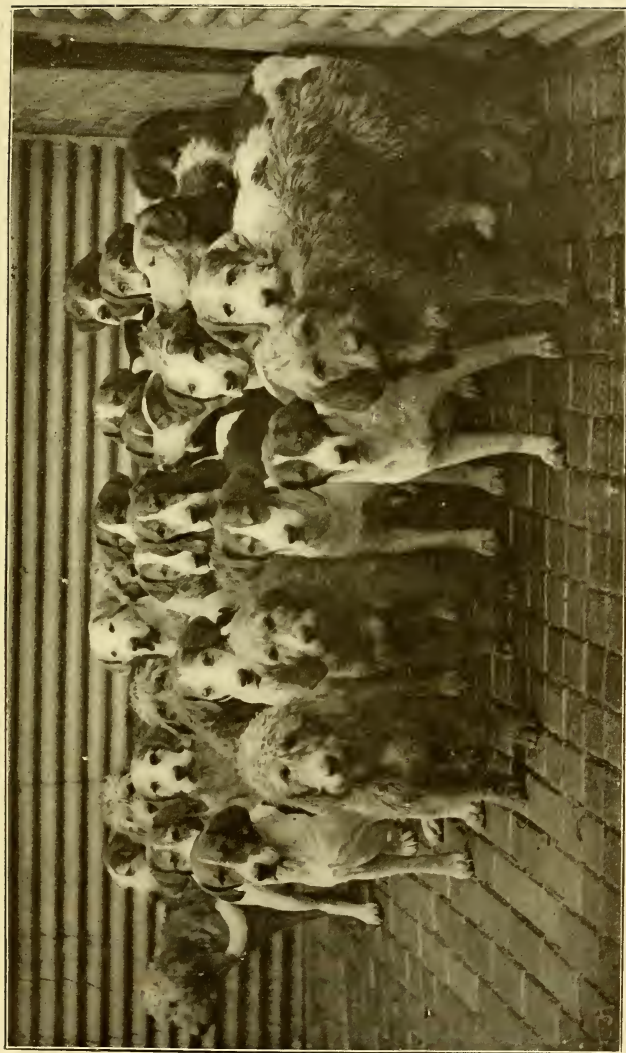
In Ireland the following packs exist:

Bray	Bree
Ballymacld	Sir George Brooks's
Captain Briscoe's (Tullimore)	Clare
Clonmel Harrier Club	Caldon
Drewstown	Dundalk
East Down	North Down
Derry	Fingal
Edenderry	Funchion Vale
Iveagh	Little Grange
Newry	Rockingham
Roscommon	Rockmount
Mount Bellew	Seafield
County Sligo	Tyneamagh
Screen	Seskenore
Tralee	Scarteen

In the foregoing list the principal packs of Harriers have been enumerated, though there are many others in existence of more or less importance. The general management of a pack of Harriers must be based upon similar lines to that for a pack of Foxhounds, and whatever applies to one does, with very few exceptions, apply equally to the other.

ASSOCIATION OF MASTERS OF HARRIERS AND BEAGLES

The members of this Association number about 200, including practically all the principal acting and



A MINED PACK OF OTTERHOUNDS

HOUNDS

To face page 146

past masters of Harriers and Beagles in England, as well as several Irish members.

The Association was founded in 1891. There have been three Honorary Secretaries, the first being the late L. E. Rickards, who was at one time Master of the Aldenham Harriers; Mr C. W. M. Kemp, who hunted the Foxbush Harriers; and the present Secretary.

The Association runs the Annual Peterborough Harrier and Beagle Show, and the Hounds eligible form a pack, whose Master belongs to the Association, to be shown there, and the hounds must be entered, or eligible to be entered, in the Association's Stud Book. There are no Standard of Points drawn up by the Association, but the judges are selected from Masters (acting or past) who are conversant with the make and shape of a good hound, and needless to say that make and shape is such that enables a hound to do its work in the best way. The hounds are judged on working lines.

CHAPTER IX

OTTER-HOUNDS

THERE are numerous packs of Otter-hounds kept throughout the United Kingdom, but only in localities where rivers are well stocked with fish and where there is plenty of cover for the quarry of these dogs, *i.e.*, the otter. In some packs pure-bred Otter-hounds are kept, whereas others are of a mixed or nondescript variety. The typical hound is a very workmanlike animal, and seems to have been bred upon lines combining three essential qualities, viz., endurance, speed and adaptability to work of an aquatic nature. As to how the original type of Foxhound has been bred there does not appear to be any very reliable data, but it is a breed that is strongly suggestive of having been evolved from the old Southern hound, and probably the Bloodhound also. In all probability there are not more than two or three packs of pure Otter-hounds, but the Dumfriesshire pack consists of pure Otter-hounds. Many Otter-hound packs are composed of pure Foxhounds, Welsh hounds, or a cross between Foxhounds and pure Otter-hounds, and most masters of Otter-hounds are in favour of having a mixed



MEMBERS OF THE DUMFRIESSHIRE PACK

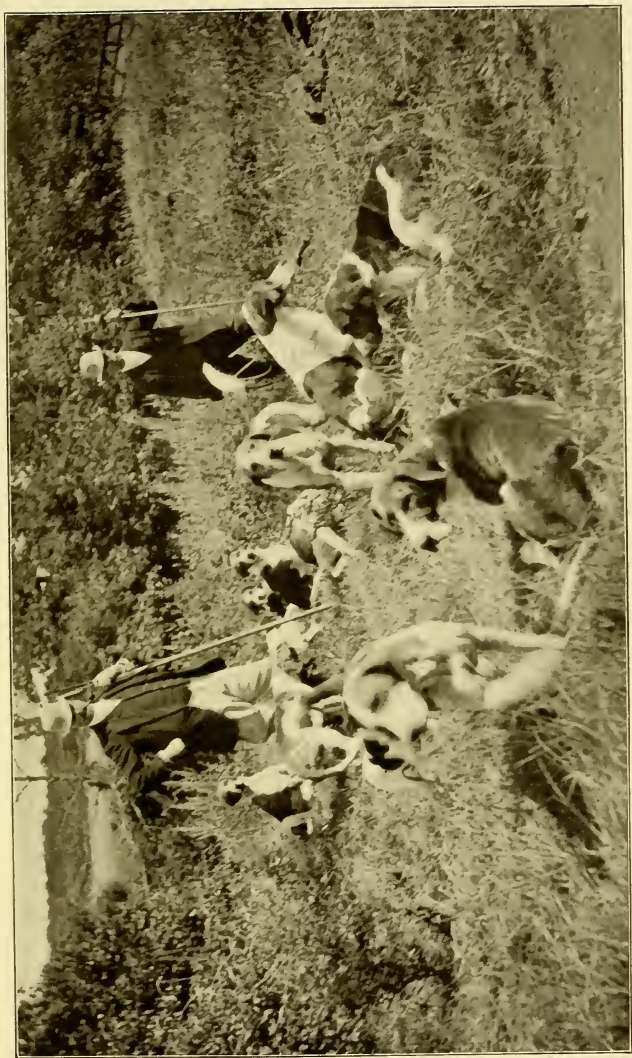
HOUNDS

To face page 148

pack, so that the latter can hunt on land for a prolonged period, for which work the pure Foxhound is the best; but if there is to be a long hunt on the banks, or in the water, either the cross-bred or the Otter-hound proves the best for such purposes. Many experienced huntsmen argue that the best hounds for otter-hunting are the pure-bred ones, but there are others, as previously stated, whose opinions are diametrically opposed to this view. A writer in the *Sporting and Dramatic News*, in giving expression to Mr William Littleworth's views (the Master of the Cheriton Pack), says: "My hounds are all smooth, Fox and Stag-hounds. In my opinion hounds ought not to speak without something to speak for. I am of opinion if you take a Foxhound young he can be trained to hunt anything, and almost every hound has a different method of working. My chief objection to the rough hounds is that they are too noisy. Some authorities argue that they stand the water better than the smooth hounds, but this must depend upon the texture of their coats, and from what I have seen they are more delicate than the Foxhound, which seems to me to have a hardier constitution. The only thing I can say in favour of the rough hounds is that they add to the tone of the music." Again, Mr Cameron's theories as to the utility of both classes of hounds are expressed in the following words: "If the Otter-

hound speaks more freely to an older drag the Foxhound will slip away 'mute' with an otter and spoil a day's sport. If the Otter-hound is not so quick at a kill, he is not so liable to 'riot,' especially at foxes, which are often found in osier beds when drawing for an otter. There are drawbacks on either side of the argument as to whether rough or smooth hounds should be employed. For looks and cry and all-round working qualities a pack of pure Otter-hounds is undoubtedly to be chosen; for a quick method of hunting, and for dash and finish at a kill, probably a mixed pack would be awarded the palm."

The same writer, in quoting the remarks of Mr C. H. Jefferson, the Master of the West Cumberland Foxhounds and the West Cumberland Otter-hounds, says that his preference is for a rough hound—half Foxhound and half Otter-hound. "I prefer this class to the pure Otter-hound; they are hardier in coat and hardier by nature, and, at the same time, maintain the rough appearance which Otter-hounds ought to have. There is no better hound for all-round work than the old seasoned Foxhound, which has become too slow for fox, but which, in his day, has been one of the best. I find these hounds take to hunting otters very quickly, and at present I have two in my pack which are splendid workers. I have only three pure-bred Otter-hounds, but I find



OTTER-HUNTING

HOUNDS

To face page 150

they cannot stand the hard work so well as the half-bred hound. For actually killing otters, and for quick, smart work, I would recommend a pack of old seasoned Foxhounds as I have referred to; but this would do away with the rough hound with its deep cry, which, in my opinion, adds so much to the pleasure of otter-hunting. At present I am breeding from, amongst others, a smooth black-and-tan bitch of Welsh blood, and crossed with a pure Otter-hound. She has bred me for the past three years some of the finest hounds, and this is the class of hounds I advocate—rough, hardy and active, with two or three old seasoned Foxhounds, which are most useful in any pack, though I unhesitatingly admit that from a spectacular point of view a pack of pure-bred hounds, such as the Dumfriesshire or Bucks, are far ahead of a mixed pack; but looks, in my opinion, are not everything, and, at any rate in my country, I have other things to consider.”

Mr A. Jones, the Master of the Worcestershire Foxhounds and the Northern Counties Otter-hounds, expresses his views as follows: “ I consider you must have a few pure-bred Otter-hounds in the pack, and the rest should comprise hounds bred from a pure Otter-hound bitch and the best working and looking Foxhound dog you can procure. Hounds bred in this way are much hardier, much quicker, have more drive, and their coats are much sooner dried than

the pure-bred Otter-hound. The more stagnant the water the more useful the Otter-hound, but where rivers run fast, and are rocky and wide, you cannot do better than work the hounds I have described."

According to the foregoing authorities the introduction of the Foxhound cross is a benefit, and the product is a rough-coated hound, with Foxhound characteristics well in evidence. The crossing of a broken-coated variety of hound with a smooth-coated one ranks parallel with the common practice adopted by many Fox-terrier breeders, viz., mating a smooth Fox-terrier with a wire-haired one. The picture presented by a pack of pure Otter-hounds and that of an Otter and Foxhound crossed pack is as dissimilar as it is lacking in picturesqueness, but for quaintness and oddities the last named certainly take the palm. A typical Otter-hound will weigh from 80 lbs. to 100 lbs. or more, and measure about 26 inches at the shoulder. The skin should be thick and the hair of a grizzle colour. A deep chest, big-boned fore and hind limbs, strong loins and quarters, together with a stout neck and a back of medium length, are desirable qualities in these hounds. The head is rather narrow, the ears carried close to the sides of the head, the nostrils broad, the flews deep, and the eyes sunken, showing "haw." The facial expression and general appearance of these hounds is that of a powerfully-made, keen-looking dog, with



THE DUMFRIESSHIRE PACK

HOUNDS

To face page 152

a coat admirably adapted for water resistance. The constitution of the Otter-hound is usually of the most robust order, so that it is not the difficulty that is experienced in rearing puppies that renders the breeding of pure hounds so little practised. There has really no standard of points ever been laid down for Otter-hounds, and the sooner there is a clearly-defined code of such points formulated the better for the future welfare of the pure-bred Otter-hound. Once fixity of type is assured there ought not to be much trouble experienced in breeding Otter-hounds up to a constant standard of excellence.

The following are some of the principal packs of Otter-hounds in the United Kingdom:

BORDER COUNTIES, NORTH WALES

This is a subscription pack, and consists of thirty couples of mixed hounds. It hunts seven days a fortnight on the rivers Severn, Dovey, Banw, Conway, Ledr, Dysynni, Vyrnwy, Tanat, and tributaries in the counties of Merionethshire and Montgomery. In all these streams otters are frequently found, and good sport commonly enjoyed.

CARLISLE

This pack of hounds comprises twelve couples, and the kennel is at Carlisle. It is an old pack of Otter-hounds and hunts the rivers Eden, Esk, Petteril and Calgal, in which otters are tolerably numerous. It is a subscription pack with a minimum subscription of 2s. 6d.

THE CHERITON

The Cheriton pack of Otter-hounds is composed of twelve couples of Fox and Stag-hounds, and was established about 1850 by Mr William Cheriton of Ellicombe, North Devon, who originally hunted both hares and otters with the pack, which hunts the rivers Teign, Little Dart, Taw, Torridge, Bray, Creedy, Yeo, Mole and Dalch. The waters are liable to sudden flood, and some of them are rapid streams. If it is a good season, as many as twenty otters will be killed.

BUCKS

This pack consists of eighteen couples of pure Otter-hounds, and hunts the following rivers: Stour, Ouse, Welland, Ivel, Cherwell, Sowe, Bain, Awn, Anker, Blythe, Lovatt, Nene, Granta, Evenlode, Wreake, Bowbrook, Windrush and tributaries, in the counties of Bucks, Beds, Hants, Warwick, Lincoln, Oxford, Rutland and some adjacent counties.

This is a subscription pack, and as the otters are fairly numerous, good sport is afforded.

CULMSTOCK

The Culmstock pack consists of twenty couples of mixed hounds, and hunts the rivers Tone, Otter, Axe, Exex, Barle, Yeo, Yarty and tributaries. About thirty otters are usually killed in the season.

This is a subscription pack, and was established in 1837.

WEST CUMBERLAND

The West Cumberland Otter-hounds is a mixed pack, consisting of twelve couples of cross-bred Foxhounds and Otter-hounds, and two couples of pure English Foxhounds. It is a very old pack and situated in a typical



PURE OTTERHOUNDS AND FOXHOUNDS CROSSED WITH OTTERHOUNDS

HOUNDS

To face page 154

otter-hunting country, the water in the streams being clear, and alternately deep and shallow. The following rivers are hunted by the pack: Derwent, Ellen, Dudden, Esk, Calder, Irt, Mite, along with various other streams in connection with lakes.

MR HASTING CLAY'S

This pack meets on Tuesdays and Fridays, and comprises from twelve to fifteen couples of cross-bred hounds and Foxhounds. It hunts the rivers Wye, Usk, Trothy, Ely, Monnow, Ledden, Olway and Cowbridge, situated in the counties of Monmouth, Glamorgan, Hereford and Gloucester. The kennels are situated at Chepstowe, and the pack is a subscription one.

DARTMOOR

The Dartmoor Otter-hounds were established in 1825, and since that time the pack has been under the mastership of about seven or eight gentlemen. The kennels are situated at South Brent, and the hounds generally meet about twice a week. It is composed of some fifteen couples, both Foxhounds and pure-bred hounds. It hunts the Dart, Avon, the Plym, Erme, Yealm, Harbourne, together with their tributaries, and sport is considered to be good.

CROWHURST

This is a subscription pack of Otter-hounds, consisting of sixteen couples, five or six couples of which are pure-bred Otter-hounds. The hounds meet two or three days a week, and hunt the following streams, in which otters are numerous: the Mole in Surrey, Kent and Sussex, the Rother in East and West Sussex, the Eden, Stour, Rover, Darenth, Medway, Rudwell, together with

their tributaries. It is a subscription pack (minimum, £1, 1s.), and meets on Wednesdays and Saturdays. This hunt, being close to London, is a favourite one.

ESSEX

A subscription pack meeting three days a week, and composed of sixteen couples of hounds, one half being Foxhounds and the other half Otter-hounds. The rivers of Essex and Suffolk, likewise Herts, Cambs and Norfolk, are hunted by this pack, and very good sport is obtained, although the rivers are difficult to hunt, being slow, deep and overgrown with rushes in many parts.

MR DAVID DAVIES'S HOUNDS

These hounds are the property of the Master, and comprise sixteen couples, some pure Otter-hounds, but the majority Foxhounds. It hunts the upper portions of the Severn, Wye and Ellen, as well as other places.

EAST OF SCOTLAND OTTER-HOUNDS

The kennels of these hounds are close to Haddington, and the pack comprises eleven couples of rough Otter-hounds. It hunts the following rivers: Tweed, Tyne, Blackadder, Whiteadder, South Esk, Eden, Orr, Soltan, and many other rivers in which otters are numerous. It was established in 1904 and subscriptions received.

DUMFRIESSHIRE

The kennels of this pack are at Annan, the hounds of which hunt all rivers in the south of Scotland up to Ayrshire, there being about fourteen otters killed in a season. It is a subscription pack, consisting of sixteen couples of pure-bred Otter-hounds, and was established in 1889 by Mr W. Davison, assisted by others. The hounds



A FAMOUS OTTERHOUND, "TALISMAN"

HOUNDS

To face page 156

from this kennel are practically the only ones shown at the Kennel Club Show in London, but it would be better if other masters with pure-bred Otter-hounds in their kennels would follow suit.

WHARFDALE

This pack was established in 1903 for hunting the Wharf and various other districts in that dale. This pack has its kennels at Giggleswick, Yorks, and meets three days a week, hunting the rivers Derwent, Esk, Aire, Nidd, also the Loone and Windermere Lake, together with the tributaries of the rivers in and around the locality.

NORTHERN COUNTIES

This is a mixed pack of hounds with the kennels close to Morpeth, comprising about sixteen couples of mixed hounds, which hunt the rivers Tweed, Tees, Swale, Tyne, North Tyne, Till, Glen, Wansbeck, Ure, etc., in Northumberland, Durham and part of Yorks, otters being numerous.

MR COURTNEY TRACY'S

This subscription pack was established in 1887, and hunts the rivers Way and Till at Farnham, Meon and Itchin in the New Forest, the Nadder, Avon and Wylfe in Wiltshire, together with the tributaries of the Stour, Dorsetshire, and various other streams.

THE YNYSFOR

These Otter-hounds hunt the rivers of Carnarvonshire, Anglesey, and a portion of those in Merionethshire. The hounds meet two days a week, being the property of the Master, whose ancestors established the pack over

a century since. It is composed of ten couples of Welsh Foxhounds, with the addition of a few pure-bred Foxhounds.

TETCOTT

This is a subscription pack and the kennels are at Bovacott. It comprises twelve couples of hounds, which hunt the rivers Camel, Thistle, Deer, Bude, Lyd, Claw, Carey, Wolf, Kensey, Waldron, etc., together with tributaries, and good sport is got on the Tamer, Camel, Attery and Okement.

HAWKSTONE

These hounds meet three days a week, the pack having been established many years. The rivers hunted are: the Teme, Wye, Elway, Towy, Cothi, Usk, Clwyd, Corve, together with other rivers and their tributaries. The best of sport is often obtained, as many as sixty otters having been killed in a single season. The kennels are situated on Ludlow racecourse, Bromfield, Salop, and the pack consists of twenty-seven couples of hounds, some being English Foxhounds, Welsh Foxhounds, pure Otterhounds, and others half Fox and half Otterhounds.

Mr T. P. LEWES'S

Mr Lewes's pack of hounds comprises from eight to ten couples of Welsh hounds and Foxhounds. It is a private pack and hunts the rivers Ayron, Rheidol and Ystwyth, together with various small streams. There are no fixed days of meeting, and otters are not numerous.

PEMBROKESHIRE AND CARMARTHENSHIRE

This is a mixed pack, open to subscription, hunting the rivers in Pembrokeshire and Carmarthenshire,



MEMBERS OF AN OTTER-HUNT COMPARING NOTES

HOUNDS

To face page 158

in which otters are tolerably numerous. The kennels are at Wanngon, Whitland, Pembroke, and contain twelve and a half couples of hounds, the pack being originally formed by officers of the King's Shropshire Light Infantry.

THE BORZOI

These Russian hounds are exceedingly popular at the present time, the classes at the principal Kennel Club Shows being, as a rule, well filled; moreover, there is a good demand for the Borzoi, purely for companionship, the latter being their exclusive use in Great Britain. As a rule they are very companionable dogs, but to this statement there are numerous exceptions, some Borzois being vicious to a degree that render such totally unsuitable for association with children and strangers. Admirers of this breed will doubtless disagree with the author's opinion as to the temperament of the Borzoi being disagreeable, nevertheless it is, as previously stated, exceptionally of the nature alluded to.

The Russian Wolfhound is used in his native land for coursing the wolf, consequently the anatomical construction of these hounds necessitate a stronger-built type of coursing dog than the British Greyhound used for hare-hunting. In this respect the Borzoi is closely allied to the Deerhound and Irish Wolfhound. It is a variety that has existed in

Russian territory for centuries, though principally amongst the nobility of Russia, with whom wolf-hunting is a favourite pastime.

The introduction of alien blood—principally that of the Siberian hound—has from time to time been resorted to in order to check degenerate tendency, which is apt to result through prolonged interbreeding.

Not only does the physical development decline, but the constitutional stamina is weakened by this pernicious practice.

Although size is a desideratum, the Borzoi must not be clumsily built. This is as great a fault as one that is undersized, though bitches are, as a rule, a little smaller than the dogs in every way, for which difference due allowance must be made when judging a class in which the sexes are mixed. The Borzoi Club insists on breeding these hounds in accordance with the work for which the head has been designed, yet in spite of this the author has often noticed the tendency on the part of judges to favour exhibits showing the highest degree of refinement, and ignoring the workmanlike conformation so essential in a breed of this kind.

In a sense this is a pardonable offence on the assumption that these hounds are only required in Great Britain for companionship, and that the transference of occupation ought, *pari passu*, to

admit of a modification of the original type of Borzoi. Such a view as the one I have ventilated has nothing to recommend its adoption, and ought not to find favour amongst those who are interested in the future welfare of these hounds.

Lack of occupation, like loss of functional vigour, has a tendency to assert its power in spite of all that scientific breeding can do towards counterbalancing such occult influences of Nature.

As in all other hounds required for speed and prolonged exertion, the chest must be deep, *i.e.*, girth well behind the elbows, but the breast ought not to be wide, as the greater the width the more diminished the speed. A wide front affords a larger area of atmospherical resistance, whilst the shoulders have not as much freedom of movement as in a hound with a narrower breast. Remarkable depth of chest is characteristic of the typical Borzoi. The Club, in their Standard of Points, in referring to the chest, says: "Deep and 'somewhat' narrow."

There is an ambiguity about the word "somewhat," as though the framers of the Standard of Points had only a hazy notion as to what should constitute the transverse diameter of the breast, though erroneously referred to as the chest.

As previously stated by the author, the *chest cannot be too deep*, or the *breast too narrow*.

These qualifications necessitate very long fore-

ribs with flat inclination, whilst the hinder ribs must not be short, otherwise dog falls away too much toward the flank. The neck must be particularly muscular and blend with the withers and back with the least possible angle. Although a Borzoi should have fine shoulders it is particularly well muscled across the withers and at the loop of the neck. The best carriage of the head is that inclined to the horizontal. The Borzoi has a long back, loins and quarters, therefore it must have a corresponding degree of muscularity, particularly in the region of the loins and quarters, but for propelling power and strength in executing sharp turns weak loins and quarters are decidedly faulty ones.

When dog is at repose the stern ought to be carried down to a little below the level of the hock, but even under excitement it must not have the so-called "gay" carriage. It is abundantly feathered.

A great deal of attention is paid to quality of the fore and hind limbs. Absolute straightness is one essential. The limbs must not be set too wide apart, but close in front, a straight front being considered a point of beauty in the Borzoi, and judges usually "line up" the dogs for frontal inspection, but it is equally important to scrutinize the conformation of the hind limbs. Neither cow-hocks nor splay feet are venial faults, and ought not to be overlooked. Both fore and hind limbs are placed very far forward or



BORZOIS

HOUNDS

To face page 162

backward, respectively, in relationship to the body or middle piece. This increases the length of the stride during swift progression.

The fore limbs must be "clean"; elbows carried close to sides, with forearms widest above and narrow towards the wrist (knee), well feathered, strong at pasterns, ending in close, well-arched toes. The height at shoulder should be about 30 inches; bitches a trifle less. Neither colour nor coat are of particular importance, but pure white, white with fawn, brindle, blue, or grey markings are the accepted colours. Coat long and silky, and either wavy, flat or slightly curly. The "frill" should be profuse.

The head of the Borzoi demands particular attention. An essential is that it shall be long and narrow, this breed being remarkable for the great length of head and the benevolent facial expression. In the first place, the skin covering the head must be thin and the hair short and fine. It is this that gives the head its sharp contour. The long muzzle and the absence of stop are very characteristic. Narrowness of skull adds to the apparent length of the head, the temporal bones being well rounded off. If the skull is thick it makes the head look short—an unfavourable defect in a Borzoi. If all parts of the head are proportionate it cannot be too long—longer and finer the better. Jaws powerful. Small,

thin ears, set well back, and dark almond-shaped eyes add to quality of the head. Evidence of "stop," thick ears, a parti-coloured nose, together with the defects previously alluded to, are, individually or collectively, defects of conformation in this variety of hound.

THE DEERHOUND

This variety of hound is built upon similar lines to that of the Irish Wolfhound, the Greyhound, and Borzoi or Russian Wolfhound, but when compared to the Greyhound the Deerhound is obviously a much heavier type of dog, and capable of undergoing a more severe form of work, as hunting the deer in mountainous districts constituted the work for which the breed was originally designed. At the present time Deerhounds are more kept for companionship than aught else, and being extremely handsome dogs, of a quiet, sociable temperament, readily lend themselves for such a purpose. They are of hardy constitution, and young stock is not particularly difficult to rear, but anyone contemplating founding a kennel of these hounds ought to have plenty of room at his disposal, as the puppies require almost unlimited exercise, otherwise various faults are liable to develop. The term Staghound and Deerhound must not be accepted as synonymous, some Deerhounds being used for hunting the stag and designated Staghounds,



A TRIO OF DEERHOUNDS

To face page 164

whilst many Foxhounds are used for the same purpose and consequently are also referred to as Stag-hounds. Concerning the origin of the Scottish Deerhound there is very little reliable information for one's guidance, nevertheless there is good grounds for believing that the breed is an ancient one, as shown by some of the older records of Scottish sport.

The reason why the Irish Wolfhound should be regarded as the progenitor of the Deerhound is a dictum no more tenable than the converse, excluding of course the supposed greater antiquity of the former.

Certain breeders of Deerhounds have adopted the plan of an out-cross such as the Russian Wolfhound, the Irish Wolfhound, also the Greyhound, with, in some instances, satisfactory results. But this variety of hound is not one that has suffered much through prolonged inter-breeding, and it is very questionable whether any permanent good follows the introduction of an alien cross.

Deerhounds vary in their colour; brindle either light or dark, reddish yellow or reddish fawn and dark blue with a shade of grey are the usual colours. Some Deerhounds have black points confined to the ears and muzzle, whereas others have white about the head or neck, chest or toes; but the presence of white in any of these situations is distinctly objectionable, although a few white hairs at the end of a tail

are of no importance, and very little more so when upon the breast. Nevertheless, white hair is certainly an indication that other than Deerhound blood has been introduced, it may be generations since. A light brindle with dark brindle shadings, likewise a bluish-grey, are colours highly esteemed, though colour is secondary to a good all-round conformation.

As in most other hound-breeding, there is a tendency to breed hounds either too big or too small, the medium-sized hound being the most useful when it comes to an analysis of the working dog. If a Deerhound is too cumbersome it is lacking in speed and agility. The coat should be rather wiry in texture and about three inches in length along the upper border of the neck, withers and back, but it is softer and shorter on the under part of the body; density of coat is as important as crispness of it; any tendency towards woolliness is objectionable.

The weight for dogs ranges from 80 to 110 lbs., and for bitches from 60 to 90 lbs.; whilst the average height for dogs ought to be 29 or 30 in., bitches being a trifle less. It seems almost needless to state that a Deerhound must have plenty of chest capacity, so that a deep chest but not a wide breast is the correct conformation. The more room for the free play of heart and lungs the greater the endurance. The back and the loins must be strong, the latter



DEERHOUND

To face page 166

well arched, this form of conformation being regarded as the most suitable for work in mountainous localities. Three important essentials are bone, muscle and substance, and any tendency to lightness of bone, want of muscular development or weakness of joints must be looked upon with disfavour. As in most other varieties of hounds, excepting the short-legged breeds, "cow-hocks" and "splay" feet are common defects, nevertheless irremediable. The forearm should be broad in all proportions, of goodly length and big at the elbow and pastern joints; fine shoulders and strong first and second thighs, together with a long tapering stern, slightly curved but hanging below the level of the hocks, are necessary points of beauty. The head should be long, broad in the muzzle, but showing no evidence of indentation or "stop." The hair on the skull is softer than that on the body, and in light-coloured dogs a black muzzle materially adds to the appearance of the animal. The nostrils should be black, the ears set on high and, when dog is at repose, folded back, but under excitement raised; the softer and finer the texture of the ear the better. Dark brown or hazel-coloured eyes are the correct type in the Deerhound.

THE IRISH WOLFHOUND

This variety of hound has, within recent years,

come into greater prominence; nevertheless, it is not a breed of dog that is ever likely to attain that degree of popularity acquired by such hounds as the Boarhound, etc., but, like the last named, the only practical utility it has at the present time is either for companionship or the guardianship of persons or property. Concerning the question of the origin of the breed there is very little information of an authentic nature, but the appearances of the Wolfhound are strongly in favour of the breed having been derived from the Deerhound cross; at any rate this would seem to apply within the last century or so, during which time the breed has been regenerated. When wolves existed in Ireland, which would probably be until the end of the seventeenth century, it is reasonable to assume that these hounds would be a good deal employed for hunting the wolf, and the decline of the breed would, as a natural event, follow the extinction of this animal. In general build these hounds are closely allied to the Deerhound, but of a somewhat stouter conformation, the necessity for which would arise in consequence of having to deal with more formidable adversaries than the hounds previously alluded to. Typical specimens of the breed should weigh from 130 to 145 or 150 lbs., and measure 34 in. at the shoulder. Size and weight, provided that the body is of proportionate build, must be regarded as a primary essential in a hound of



IRISH WOLF HOUND, CIL. "COTSWALD "

HEIGHT $34\frac{1}{2}$ INCHES. WEIGHT 148 lbs.

HOUNDS

To face page 168

this class, and in breeding Wolfhounds it is indispensable to bear this fact in mind: degeneracy frequently follows loss of occupation, which is apt to ensue in the case of all hounds no longer required for the chase. In colour their coat resembles that of the Deerhound, viz., brindle, grey, red, black, white, fawn, whilst the hair should be rough and of a wiry texture all over the body, a soft or woolly coat being decidedly a faulty one, though by no means an uncommon defect. It is stated that black-and-tan specimens of the breed are occasionally seen, but this is not a colour that finds favour amongst connoisseurs of these hounds. As in all other dogs required to undergo swift and prolonged exertion, great depth of chest is a *sine qua non*. Big-boned forearms, strong wrist joints, stout pasterns and compact feet are in the main the principal essentials of good conformation. Two prominent faults are common in connection with the fore limbs, *i.e.*, lightness of bone and splay feet, more especially the latter. Unless a hound comes well upon its points during early maturity it will never be a well-developed dog, as later development never obliterates defects firmly established during youth. The neck ought to be of medium length, of moderate breadth in all proportions, and carried well up, but free from loose skin. Needless to say the back must be long, broad, arched at the loins, where there must be a maximum of muscular

development. The quarters and the first and second thighs must have the combination of length, breadth and thickness, the hind limbs being the propellers of the body, so that there is ample muscular development for the onward propulsion of the body during the forward stride. The waist should be well tucked up. Concerning the relationship of the hind limbs to the body, the feet should look directly forwards and not turn outwards, otherwise the dog becomes "cow-hocked," which is a very common defect, not only in hounds but in certain other large varieties, and it is a defect of conformation that is very likely to be perpetuated, so that in the selection of a sire or dam one can hardly be too particular as to absolute freedom from this hereditary legacy.

Regarding the carriage of the stern, the latter ought to be, during repose, hanging down below the level of the hocks, but it has a distinct upward curve under excitement.

The head must be long but the skull not broad; a long, strong muzzle, sound, level teeth, small ears carried close to the side of the head, together with a keen facial expression and docile temperament, constitute the complementary features characteristic of a typical Irish Wolfhound.

General Management and Kennel Hygiene.—Although no longer required for work, it is necessary to keep these hounds in good hard condition, which

can only be attained by well-regulated exercise, regular feeding and good grooming. Wolfhounds should be fed twice a day, and the best food comprises dog biscuits in the morning and raw flesh mixed with boiled rice for the evening meal. Three-quarters of a pound of flesh per day is quite sufficient, and from half to three-quarters of a pound of dog biscuits, either dry or soaked, per diem. The coat must be brushed with a good stiff brush such as a dandy brush, and any soft particles of wool removed with a comb.

The following is the standard of points as framed by the Irish Wolfhound Club:—

General Appearance.—The Irish Wolfhound should not be quite so heavy or massive as the Great Dane, but more so than the Deerhound, which in general type he should otherwise resemble. Of great size and commanding appearance, very muscular, strongly though gracefully built, movements easy and active, head and neck carried high, the tail carried with an upward sweep, with a slight curve towards the extremity.

The Minimum Height and Weight of dogs should be 31 in. and 120 lbs; of bitches, 28 in. and 90 lbs. Anything below this should be debarred from competition. Great size, including height at shoulder and proportionate length of body, is the desideratum to be aimed at, and it is desired to firmly establish a

race that shall average from 32 in. to 34 in. in dogs, showing the requisite power, activity, courage and symmetry.

Head.—Long, the frontal bones of the forehead *very* slightly raised, and *very* little indentation between the eyes. Skull not too broad. Muzzle long and moderately pointed. Ears small and Greyhound-like in carriage.

Neck.—Rather long, very strong and muscular, well-arched, without dewlap or loose skin about the throat.

Chest.—Very deep; breast wide.

Back.—Rather long than short; loins arched.

Tail.—Long and slightly curved, of moderate thickness and well covered with hair.

Belly.—Well drawn up.

Forequarters.—Shoulders muscular, giving breadth of chest, set sloping. Elbows well under, neither turned inwards nor outwards.

Leg.—Forearm muscular, and the whole leg strong and quite straight.

Hindquarters.—Muscular thighs and second thigh long and strong as in the Greyhound, and hocks well let down and turning neither in nor out.

Feet.—Moderately large and round, neither turned inwards nor outwards. Toes well arched and closed. Nails very strong and curved.

Hair.—Rough and hard on body, legs and head;

especially wiry and long over eyes and under jaw.

Colour and Markings.—The recognized colours are grey, brindle, red, *black*, pure white, fawn or any colour that appears in the Deerhound.

Faults.—Too light or heavy a head, too highly-arched frontal bone, large ears and hanging flat to the face, short neck, full dewlap, too narrow or too broad a chest, sunken or hollow or quite straight back, bent forelegs, overbent fetlocks, twisted feet, spreading toes, too curly a tail, weak hindquarters and a general want of muscle, too short in body.

THE GREAT DANE

This is a variety of German origin, and it is only about five-and-twenty or thirty years since the Great Dane was introduced into England—at any-rate in sufficient numbers to establish the breed in Great Britain, necessitating its recognition by the Kennel Club and the formation of classes at the various shows. It is a variety which has now become firmly established in the British Isles, and its popularity is in a large measure due to the noble appearance of these hounds, coupled with their intelligence and extreme docility.

Regarded in the light of a hound, the Great Dane stands as the most massive of all, and whilst it

possesses in certain respects a resemblance to the mastiff, it has features quite distinctive from this breed. In the first place it is a much more active dog, less inclined to be of surly temperament, and can be kept under conditions that would prove wholly unsuitable to a mastiff—a breed that the Great Dane has largely displaced, though admirers of the former variety are right in adhering to the fact that the mastiff is the more majestic-looking animal of the two. In all probability the ancient lineage of the two is comparable, there being evidence to prove the existence of both varieties for hundreds of years. The Great Dane was originally designed for hunting the wild boar, and the cropping of the ears of these dogs in their native land is suggestive that the object was to prevent injury to the ears during combat with their foes. For a long time cropping was practised in England, but the Kennel Club put their veto upon it, and rightly so; it was as unnecessary as it was cruel, therefore bound to be abolished as in certain other breeds, such as the Black-and-tan Terrier, Bull Terrier, etc. For some time after the varieties named fell in popularity, but with the re-establishment of reason the Great Dane and the other breeds alluded to regained their former position. A very early exhibitor of Boarhounds in England was Mr Adcock, and the writer remembers that he used to exhibit a dog called Satan with a measure of success, but the



A TYPICAL GREAT DANE

animal had to compete in the Variety Class, the breed not being a recognized one in this country at the time. As far as the author recollects, this was about 1878 or 1879, as classification for Boarhounds was first adopted in 1883, and a couple of years later was subsequently changed for that of Great Danes. The sole use of these dogs, at anyrate in Great Britain, is for companionship and guardianship only, and anyone in search of a formidable-looking hound, yet responsive to command, cannot do better than select a Great Dane. It is not a variety that is suitable for living within the domestic circle, being rather cumbersome in the house, but many owners will not willingly accept this statement. The Great Dane exists in a variety of colours, though colour ought not to rank as of much importance—at anyrate it should stand secondary to good conformation. Some are self-coloured, others harlequin. The ground colour ranges from a light yellow to a deep reddish-yellow, striped with deep brindle markings, the latter often being of intense blackness. The self-colours are black, yellow or blue, but sometimes there are darker points on the muzzle, around the eyes and down the spine. In Harlequin Great Danes the ground colour is white, with black or grey patches distributed over the body, even distribution being looked upon as a point of beauty. Many Harlequins have “ wall ” or “ china ” eyes, also a pink nose or

a butterfly nose, *i.e.*, a mottled one. Weight, bone and substance throughout constitute important features of the Great Dane, so that unless the dog excels in these particulars it is not very likely it will ever occupy a prominent position on the show bench. The Great Dane Club fixed the minimum weight for an adult dog at 120 lbs., and that for a bitch at 100 lbs., but qualify this condition by saying that the greater height and weight are to be preferred, provided that the animal is proportionate and shows quality throughout. The Club fixes the height for adult dogs at 30 inches and that for bitches at 28 inches, such measurements being of course taken at the shoulder, with the animal standing on level ground. The hound-like characteristics are plainly marked in the breed, being particularly evident in the regions of the neck, withers, back, loins, quarters and flanks, together with the forward position of the front limbs and the backward position of the hind limbs, features which are best fitted for length of stride and speed. Throughout its anatomy the Great Dane is a racy-looking dog, coupled with enormous power—a power far greater than in any other variety of hound. In looking at the Boar-hounds at some of the principal shows, or at the annual show held by the Great Dane Club, it is surprising to note what a number of hounds shown are either poor or indifferent in general conformation;

probably one of the most conspicuous faults is in connection with the limbs, more especially the hind ones. A "cow-hock" conformation stands pre-eminent as a fault in this direction, but it must be borne in mind that it exists in a variable degree, being so slight in some cases as to be hardly noticeable; in others the defect exists to a moderate degree; whereas in the third class it is so manifest that it destroys all the beautiful lines of contour as viewed from behind in a typical hindquarter conformation. The hocks ought not to approach each other, but look directly backwards, neither inwards nor outwards. A less common defect, nevertheless one almost as prejudicial, is that in which the points of the hocks turn outwards, thus giving the dog the appearance of being too wide behind. Graceful shoulder conformation is as essential as big-boned, straight fore limbs are, but a Great Dane ought not to have the so-called "bossy," *i.e.*, heavily-fleshed shoulders; the term "loaded" is synonymous when applied to this region. The breast ought to be of medium width, passing into a low set under line, until the latter reaches the flank, when it should slope off at an acute angle so as to make the animal well tucked up in the belly. The upper line of the body, *i.e.*, the back and the loins, to be of medium length, with an arch-like conformation of the latter. In addition to the back and the loins being well clothed

a butterflyose, i.e., a mottled one. Weight, bone and substance throughout constitute important features of the Great Dane, so that unless the dog excels in the particulars it is not very likely it will ever occupy a prominent position on the show bench. The Great Dane Club fixed the minimum weight for an adult dog at 120 lbs., and that for a bitch at 100 lbs., but qualify this condition by saying that the greater height and weight are to be preferred, provided that the animal is proportionate and shows quality throughout. The Club fixes the height for adult dogs at 30 inches and that for bitches at 28 inches, such measurements being of course taken at the shoulder, with the animal standing on level ground. The hound-like characteristics are plainly marked in the breed, being particularly evident in the regions of the neck, withers, back, loins, quarters and flanks, together with the forward position of the front limbs and the backward position of the hind limbs, features which are best shown in the stride and speed. Through the Great Dane is a racy-looking animal, with enormous power, it is not so much superior to other varieties of hounds at speed as it is at the annual show, where it is surprising to find that the Danes are either poor

probably one of the most conspicuous faults is in connection with the limbs, more especially the hind ones. A "cow-hock" conformatn stands pre-eminent as a fault in this direction but it must be borne in mind that it exists in a variable degree, being so slight in some cases as to be hardly noticeable; in others the defect exists to a moderate degree; whereas in the third class it is so manifest that it destroys all the beautiful lines of contour as viewed from behind in a typical hindquarter conformation. The hocks ought not to approach each other, but look directly backwards neither inwards nor outwards. A less common defect, nevertheless one almost as prejudicial, is that in which the points of the hocks turn outwards, thus giving the dog the appearance of being too wide behind. Graceful shoulder conformation is as essential as big-boned, straight fore limbs are, but a Great Dane ought not to have the shoulders too heavily-fleshed. The shoulders should be of moderate length and of moderate width when applied to the body. The neck should be of moderate length and of moderate width, and should be of moderate thickness. The head should be of moderate size and of moderate shape, and should be of moderate weight. The tail should be of moderate length and of moderate thickness, and should be of moderate position. The legs should be of moderate length and of moderate thickness, and should be of moderate position. The feet should be of moderate size and of moderate shape, and should be of moderate weight. The skin should be of moderate thickness and of moderate texture, and should be of moderate color. The coat should be of moderate length and of moderate texture, and should be of moderate color. The overall appearance should be of moderate elegance and of moderate strength.

roomy, and as these dogs commonly suffer from thickening of the skin at the points of the elbows and hocks, the writer strongly urges the necessity for having a deep bed of sawdust covered with straw for these hounds to lie upon. Nothing can be more unsightly than these large bare patches of skin (psoriasis), the result of pressure and curable only by removing the cause and subsequently dressing with chrysarobin ointment of the British Pharmacopœia, taking care to rub the ointment well in, once a day, and then removing any superfluous portions of it, otherwise harm may be done. Both the sleeping apartment and the kennel run ought to be large, whilst the runs for puppies must be as extensive as possible. Admitting that hereditary predisposition constitutes an important factor in the development of defective conformation, it is, nevertheless, a well-established truth that insufficient exercise and improper feeding are largely responsible for a proportion of such defects, therefore Great Dane breeders should treat their young hounds liberally both as regards exercise, regularity of feeding and the quantity and quality of the food supplied. Begin to wean the puppies when they are a month old, and feed them not less than five times per day up to the sixth week, and from that period up to the fourth month four times per day, viz., at the following times: 8 a.m., 12 p.m., 4 p.m., and 8 p.m. All adult

Great Danes thrive much better with light clothing on in summer, and in the winter a flannel coat; this helps to keep the coat down as well as create a healthy condition of the skin in general. The daily use of the hound glove, combined with a general regard for all that appertains to the hygiene of the kennel, constitutes the basis for the successful management of the Great Dane, either as an individual hound or as a collection of such dogs.

BEAGLES

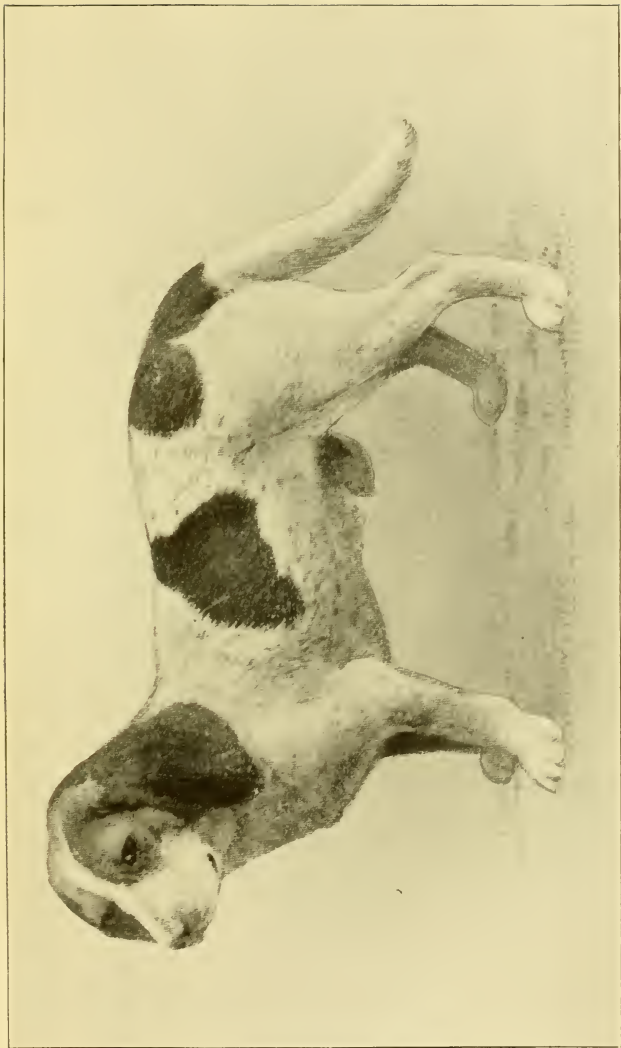
This is an ancient variety of hound and one that has been popularly known in its diminutive form under the title of "pocket" Beagle, also as "singing" Beagles. According to accounts, Queen Elizabeth had a pack of these small hounds. Their hound-like characteristics are so strongly marked that it is at once obvious the breed must have existed in its pure state from an indefinite period. Although there are many packs of Beagles throughout the United Kingdom it is seldom that classes are allocated to the breed. At even some of the larger shows, and with one or two exceptions, there are no prizes awarded for Beagles. This is to be regretted, being detrimental to the best interests of these useful little dogs. There has been a desire, more especially on the part of ladies, to reduce the size of the dog into

one only fitted as a toy dog. A reduction in size destroys the hound characteristics, therefore the utility of these dogs, the breed having originally been designed for hunting the hare, though many sportsmen use them for rabbit-shooting, for which purpose they are particularly suitable. Rough and smooth-coated varieties of these hounds exist, and a standard of points has been formulated by the English Beagle Club and by the American Beagle Club.

A beagle may be any hound colour, but the most popular are black, white-and-tan, then lemon-white, blue and lemon-mottle, black-and-tan, lemon, fawn, etc. It has already been pointed out that a hound may become (by in-breeding from under-sized specimens) too small, and in the same way it may become too large through breeding from big, coarse hounds, therefore, in order to correct these defects, the Beagle Clubs have a standard of height, whilst the Kennel Club adopts the following classification:

- (1) Hounds not exceeding 10 inches.
- (2) Hounds not exceeding 12 inches.
- (3) Over 10, but not exceeding 12 inches.
- (4) Over 12 inches, but not over 16 inches.
- (5) In the Novice Class any height.
- (6) Class for rough coats.

The English Beagle Club's classification is divided



BEAGLE

into rough and smooth hounds not exceeding 16 inches and over 12 inches; not exceeding 12 inches and over 10 inches; and not exceeding 10 inches.

The American Beagle Club have their limit of height fixed at 15 inches, and rule that any dog or bitch exceeding this height shall be disqualified. Coarseness in a beagle is more than a venial fault, and connoisseurs are strongly opposed to a hound displaying such characteristics. Strictly speaking, a typical beagle should be a miniature Foxhound, and the nearer it approaches such type of conformation in a modified form the more orthodox the hound. The coat must be close, and that covering the head short and finer than that on the rest of the body. In the rough coats the hair must be dense and wiry. The American Beagle Club like a coat moderately coarse in texture and of good length, regarding a short, close and nappy coat as a disqualification. The head, the legs and the feet constitute 40 per cent. of points, so that judges pay particular attention to these parts of the anatomy. The head must be of medium length and have a well-domed skull, therefore a clearly-defined "stop"; any tendency towards a snipy muzzle is objectionable, but Beagle bitches lack the masculine characteristics in this region; the flews or cheeks should come well down and meet a powerful lower jaw.

For size these hounds are wide in the breast,

nevertheless deep at the girth, thus enabling them to undergo prolonged exertion at anything excepting a fast pace. In comparison with the size of the dog the ears are large, hanging below the level of the lower jaw in graceful folds close to the sides of the face. The leather of the ear must be free from coarseness.

Black nostrils, hazel or brown eyes set well apart, and a thin skin covering the face, are points of beauty in a Beagle. The fore limbs must be absolutely straight and have plenty of bone and substance about the arms and forearms, with elbows carried close to chest wall, so that the hound is well coupled in front, which is as important as good coupling behind. The body must be of medium length, with strong back and loins and well-sprung ribs. The feet are rather round, compact, and carried in a line with the body, the same remarks being applicable to the hind feet, whilst the hind limbs must be well muscled at both the first and second thighs, and all joints, but particularly those of the hocks and the knees, broad; "cow-hocks" are a common fault, and as such are liable to be perpetuated, it is not advisable to make use of hounds with defects of this kind for stud purposes. The stern should be carried gaily under excitement, but down during repose, and must never curl over the back. Upright shoulders, cow-hocks, open feet, splay feet, eyes too close together, too

small, too light in colour, pig-jaws, short ears, flat skull, a long or sway back, a shallow chest, a short, cloddy neck, a teapot-curved tail and thick ears, also lightness of bone, together with a general want of symmetry, are, individually or collectively, defects common to many Beagles. In breeding these hounds it is necessary to select a sire and dam the conformation of which is as near as possible in accordance with the points laid before the reader in this chapter.

There are numerous packs of Beagles kept throughout England, and a few packs in Scotland, the following being some of the principal ones:

AIREDALE

This pack consists of twelve couples of 15-inch Beagles, and was established in 1891, hunting over the districts around Shipley and Bingley; it has a minimum subscription of 10s. 6d.

ALDERSHOT

The Aldershot Beagles hunt over a grass and heather country. It is a regimental pack, composed of twenty couples of 16-inch Beagles.

BERWICK

This is a subscription pack, consisting of thirteen couples of 15-inch pure bred Beagles, and hunts the country from St Abb's Head to Holy Island, there being plenty of hares.

BRIGHTON

This pack of Beagles meets on Tuesdays and Saturdays to hunt the South Down country. It is composed of fifteen to seventeen couples of 15½-inch Beagles, and was established in 1894.

BRONWYDD

This is a private pack of Beagles, established in 1846 by the late Sir Thomas Lloyd, Baronet, and the country over which they hunt is mostly moorland. There is about ten couples of 15½-inch Beagles in the pack.

BUSHEY HEATH

A private subscription pack, founded in 1891 by Mr R. Mavor. It consists of fifteen couples of 14-inch pure Beagles.

BUCKLAND

The Buckland Beagles meet on Wednesday and Saturday, and hunt over both pasture and ploughed land, where barbed wire is plentiful. The pack consists of seventeen couples of 15-inch Beagles, and is the property of the Master.

CHESHIRE

The Cheshire Beagles were established in 1854, and hunt over pasture land. No subscription less than £3, 3s. is taken, and the pack is composed of fourteen couples of 15½-inch Beagles.

CHRISTCHURCH, OXON

This is a private pack belonging to Christchurch College, and was founded in 1875. It is composed of fifteen couples of 15-inch Beagles.

COCKERMOUTH

In this pack there are twelve couples of 16-inch Beagles, which hunt two days a week. It was established in 1857, and the kennels are at Hazelbank, Cockermouth.

EXETER COLLEGE, OXON

The Exeter College has a subscription pack of thirteen couples of 15-inch Beagles, the kennels of which are at Woodstock.

FURNESS BEAGLES

In this pack there are fourteen couples of 15½-inch Beagles entered in the Beagle Stud Book, as in nearly all other packs. It was established in 1886.

MR GREAVES'S PACK

This is a Welsh pack, and in the district in which it hunts hares are plentiful. It was formerly hunted by harriers, but Mr Greaves's pack of twenty couples of 12- to 13-inch Beagles now hunt the district.

HORSELL

The Horsell Beagles were established in 1875; the pack is now composed of eleven couples of 15-inch Beagles. No subscription of less than £2, 2s. is accepted, and the country hunted is partly pasture, plough and moorland.

INSTOW

The Instow Beagles are 15-inch tricoloured hounds belonging to a committee, and the pack was established in 1905. It meets twice a week and consists of eleven couples.

LICHFIELD GARRISON

This pack is composed of ten couples of 14-inch Stud-Book Beagles and is the property of the officers of the garrison.

NEW COLLEGE AND MAGDALEN

This is a private pack established in 1896 by New College, but subsequently became amalgamated with the Magdalen. The pack consists of fifteen couples of 15½-inch pure Beagles.

MRS PRICE'S

Mrs Price established this pack in 1901, and it hunts in the New Forest. In the pack are twenty-two couples of 22½-inch Beagles.

MR PRICE'S

This is a private pack established in 1900 by the Rev. J. Price, Talley House, near Llandilo, South Wales. These Beagles hunt mostly over pasture and moorland, and the pack consists of ten couples of 15-inch Beagles.

RICHMOND, YORKS

This pack of Beagles, which consists of twelve couples of 15-inch to 16-inch Beagles, hunts over pasture and plough land, hares being plentiful in the locality. The pack was established in 1897 and is the property of the master.

PEN-Y-GHENT

The Pen-y-Ghent Beagles is a private pack consisting of eleven and a half couples of 15-inch Beagles; the country being hilly and not hunted by Foxhounds.

ROYAL AGRICULTURAL COLLEGE

This is a pack, the property of the College, being maintained by members of the R.A.C. It comprises fourteen couples of mixed hounds, the kennels being at Cirencester.

SHOPWYKE

The kennels are close to Chichester, and the hounds hunt in the old Goodwood country. The pack consists of seventeen couples, and members of the hunt wear uniform of green coat, black collar with silver braid, and a black and silver button.

ROYAL ROCK

This is a subscription pack of 15½-inch pure Beagles and consists of fourteen couples. It is an old-established one, being founded in 1845. The kennels are at Higher Bebington, Cheshire, and hounds meet sometimes three days a week.

SURBITON

The Surbiton Beagles hunt mostly over plough land, meeting on Wednesday and Saturday. The pack is a subscription one, consisting of fourteen couples of 15½-inch Stud-Book Beagles.

TRINITY COLLEGE, CAMBS

This is a subscription pack composed of twenty couples of Beagles; it meets four days a week. The subscription is 30s. per term.

WARWICKSHIRE

The Warwickshire Beagles are 15-inch hounds, and in the pack there are twelve couples. They hunt over Warwickshire and Atherstone.

WORCESTER PARK

In the Worcester Park Beagles there are seventeen couples, but they are not all pure Beagles. Their country includes Epsom Downs, Bansted, Merstham, and Caterham Valley.

WOODDALE

The Wooddale Beagles belong to the Master and were established in 1900. They hunt in the district of Crawley and Horsham, and the minimum subscription is £1. The pack consists of sixteen couples of 15-inch Stud-Book Beagles, and the days of meeting are on Tuesday and Friday. The kennels are close to Billingham, Sussex.

BEAGLES IN SCOTLAND

EDINBURGH

This pack was established in 1897 and is composed of twelve couples of 15-inch Stud-Book Beagles. It has a minimum subscription of £2, 12s. 6d., and the days of meeting are Saturdays and every alternate Tuesday. The kennels are at Broomvale, Corstorphine.

ESK DALE

This is a small pack, having only seven couples of 15-inch Beagles, some of which are entered in the Stud Book, others not. It is the property of the master.

BEAGLES IN IRELAND

There are not many packs of beagles in Ireland, the following being the principal ones:—

MOUNT MELLICK.—The Beagles of this pack consist of sixteen couples, but some are Harriers. It was established in 1902.

The MOYOLA PARK BEAGLES comprise twenty couples of 15-inch Beagles, and the country they hunt lies in the counties of Antrim and Derry. It is a private pack.

The BALLYMARTLE BEAGLES meet two days a week and consists of fourteen couples of 14-inch Beagles, the property of the Master.

The BELLMOUNT BEAGLES were established in 1897 and they hunt the stoat during three seasons of the year, viz., spring, summer and autumn. The kennels are at Bellmount, Crookstown, County Cork, and the hounds meet twice a week.

THE DACHSHUND

This is a German variety of dog, and one that has undergone considerable change through selection. Like the Basset-hound it exists in rough and smooth-coated varieties, though the latter is the one that finds most favour. The chief use of the Dachshund in Great Britain is for companionship only, for which purposes the breed is highly esteemed, more especially by the ladies. In Germany the Dachshund is used for hunting, but it has a much more workmanlike appearance than the British type of hound. In height the Dachshund should measure from 7 to 9 inches, such measurement being taken from the shoulder, whilst the weight ranges from 18 to 21 lbs. In Germany the clubs have three divisions of weight, namely, light, medium and heavy; the medium weight being the most preferable one. The coat should be short and close, whilst the skin

ought to be loose and abundant all over the body.

With reference to colour, Dachshunds exist either in whole or parti-colours, but red, yellow and fawn are the principal ones, whilst black-and-tan, chocolate and-tan, also dapple, are the parti-colours usually met with. Pure white Dachshunds are exceedingly rare. The presence of much white hair on the body is regarded with disfavour. The nostrils must correspond to the body colour; for instance, a chocolate-and-tan dog must have a liver-coloured nose, and a black-and-tan dog a black nose.

The conformation of the Dachshund is peculiar in many respects, the length of the limbs being altogether disproportionate to that of the body. It is a variety of dog which preserves an element of hound characteristics in the region of the head, but the reduction in the length of the limbs abolishes one of the leading characteristics of hounds, viz., speed. The body should be long, two and a half times the height at the shoulder—in fact length of body and crook of the fore limbs constitute points of the greatest importance. The loins must be well arched, the chest deep, and the back ribs well-sprung. Amplitude of chest capacity is indispensable, so that the chest must be deep, but a narrow chest and prominent breast bones are requisite qualifications.

The head must be long and narrow, and the dome



IMPROVED DACHSHUNDS. THE PROPERTY OF MR. W. LEVER

HOUNDS

To face page 192

of the skull well developed. The ears long, broad and soft; thin in the leather, and carried close to the side of the head. Muzzle long, rather square in outline, with the lower jaw bearing sound, level teeth. There must be no evidence of "stop." In looking at the Dachshund it will be noticed that the shoulders are prominent, being big boned and heavily muscled in this region. The eyes to be of medium size, and the same colour as the body. Particular attention is paid to the fore limbs, which must be short, with elbows lying close to the ribs. The shortness of the forearm and the relatively large size of the bone in this region, together with the crook at the knees and short pasterns and broad feet, are significant characteristics of the Dachshund. The English and the German Dachshund clubs differ in their code of points, therefore it would be as well to enumerate the German standard of points, the description of which is as follows:

Colour.—(a) Single-coloured: red, yellowish-red, yellow, or red-and-yellow with black points, but one colour only is preferable, and red is better than yellowish-red and yellow. White is also allowed. Nose and nails black, red also permitted, but not desirable

(b) Two-coloured: deep black or brown, or grey, each with yellow or reddish-brown spots over the eyes, on the sides of the jaws and lower lips, on the

inner rim of ear, on the breast, on the inside and back of legs, under the tail, and from there down one-third to one-half of the under-side of the tail. Nose and nails black in black dogs, brown in brown dogs, grey in grey dogs, and also flesh-colour.

In one- and two-coloured dogs white is permissible, but only to the smallest possible extent, as spot or small streaks on breast.

(c) Spotted: ground is a shining silver-grey, or even white, with dark, irregular spots (large spots are undesirable) of dark grey, brown, yellowish-red or black.

Neither the light nor the dark colours should predominate. The main factor is such a general appearance that at some distance the dog shall show an indefinite and varied colour which renders him particularly useful as a hunting dog. The russet-brown marks are darker in darker spotted dogs, and yellower in the lighter ones, and there may be an indication of these in the case of a white foundation. Light eyes are permitted; when the ground colour is white a flesh-coloured or spotted nose is not a fault. White marks are not desirable in dark dogs, but are not to be regarded as faults which disqualify.

Height at Shoulder.— $7\frac{1}{8}$ to $8\frac{5}{8}$ inches.

Coat.—Short, thick as possible, glossy, greasy (not harsh and dry), equally covering entire body (never showing bare spots).

Weight.—This is divided into three classes, viz., light weight: dogs under $16\frac{1}{2}$ lbs., bitches under $15\frac{1}{2}$ lbs. Medium weight: dogs from $16\frac{1}{2}$ lbs. to 22 lbs., bitches $15\frac{1}{2}$ to 22 lbs. Heavy weight: dogs and bitches over 22 lbs.

Head.—Elongated, and, as seen from above and from the side, tapering towards the point of the nose, sharply outlined and finely modelled, particularly in profile.

Skull.—Neither too wide nor too narrow, only slightly arched, and running gradually without break (stop)—the less the break (stop) the better the type—into a well-defined and slightly-arched nasal bone

Eyes.—Medium-sized, oval, set obliquely, clear and energetical expression. Except the silver colour of the grey and spotted dogs, and the yellow eyes of the brown dogs, the colour is a transparent brown.

Nose.—Point and root long and slender, very finely formed.

Lips.—Tightly stretched, well covering the lower jaw, neither deep nor snipy, with corner of mouth slightly marked.

Jaws.—Capable of opening wide, extending to behind the eyes.

Teeth.—Well-developed, particularly the corner teeth, these latter fitting exactly. Incisors fitting

each other or the inner side of the upper incisors touching the outer side of the lower.

Ears.—Relatively well back, high and well set on, with forward edge lying close to the cheeks; very broad and long, beautifully rounded (not narrow, pointed or folded), very movable, as in all intelligent dogs; when at attention the back of the ear directed forwards and upwards.

Neck.—Sufficiently long, muscular, lean, no dew-lap, slightly arched in the nape, running in graceful lines between the shoulders, usually carried high and forward.

Shoulders.—Long, broad and set sloping, lying firmly on fully-developed thorax; muscles hard and plastic.

Chest.—Corresponding with his work underground, muscular, compact; the region of the chest and shoulders deep, long and wide; breast bone strong and so prominent as to show a hollow on each side.

Back.—In the case of sloping shoulders and hind quarters, short and firm; if steep (straight) shoulders and hind quarters, long and weak; line of back behind shoulders only slightly sunk, and only slightly arched near the loins.

Trunk.—Ribs full, oval, with ample width for heart and lungs; deep and hanging low between the fore legs; well sprung out towards the loins; loins short and broad; line of belly moderately drawn up

and joined to the hind quarters with loosely-stretched skin.

Hind Quarters.—These must be round, full and broad, muscles hard and plastic; pelvis bone not too short, broad and strongly-developed, set moderately sloping.

Fore Legs.—Upper arm of equal length with and at right angles to the shoulders. Strong-boned, well-muscled and lying close to the ribs, but moving freely up to the shoulder-blade. Lower arms short as compared with other animals, slightly inclined inwards. Strongly muscled and plastic towards front and outside; inside and back parts stretched by hard tendons.

Hind Legs.—Thigh bones strong, of good length, and joined to pelvis at right angles; thighs strong and with hard muscles; buttocks also well rounded out; knee-joint developed in length; lower legs short in comparison with other animals, at right angles to thigh bone, and firmly muscled; ankle bones well apart, with strong, well-sprung heel and broad Achilles tendon.

Feet.—Fore feet broad and sloping outwards; hind feet smaller and narrower; toes always close together, with distinct bend in each toe; nails strong and regularly pointed outwards; thick soles.

Tail.—Set on at medium height, not too long, nor carried too high.

General Appearance.—Gnome-like, short-legged, elongated, but stiff figure, muscular. Notwithstanding the short limbs and long body, neither appearance stunted, awkward, incapable of movement nor yet lean or weasel-like, with a pert, saucy pose of the head, and intelligent expression.

Defects.—Too weak or crippled, too high or too low on the legs; skull too wide, too narrow or too much arched; ears set on too high, too heavy or too short; also set on too low and narrow, or low or slack; “stop” too pronounced, and goggle eyes; nasal bone too short or pressed in; lips too pointed or too deep; overshot; short developed neck; fore legs badly developed, twisted or poorly muscled, hare-footed or flat-spread toes; too deeply sunk behind the shoulders, *i.e.*, hollow-backed; loins too much arched or weak; ribs too flat or too short; rump higher than the shoulders; chest too short or too flat; loins arched like a Greyhound; hind quarters too narrow or poor in muscle; cow-hocked; tail set on high, and carried too high, or too much curled; too thin, long, or hairless (rat-tailed); coat too thick, too coarse, too fine or too thin; colour dead, dull, or too much mixed. In black dogs with russet-brown marks (tan) these latter should not extend too far, particularly on the ears.

The foregoing description of the Dachshund as described by the Germans embodies all the principal

features of the English standard, but discloses the fact that continental capacity for taking pains is greater there than in Great Britain.

Kennel Management and Hygiene.—Anyone contemplating the formation of a kennel of Dachshunds should endeavour to select as the foundation-stone for such kennel a fashionable brood bitch or two, and mate these with suitable sires. The constitution of the Dachshund is not particularly hardy, more especially in strains which have been a good deal inbred, nevertheless these hounds cannot be considered as specially difficult to rear, provided that due attention is paid to kennel management in general. The best time of year to breed from bitches is the spring, so that the offspring will have the advantages of the summer weather for exercises and to attain a fair degree of development before the ensuing winter, in this manner fortifying the constitution against the ravages of such diseases as distemper, etc. Dachshunds over twelve months old should be fed night and morning, and a frequent change of food is most beneficial. Half a pound of flesh for each hound, mixed up with a quarter of a pound of soaked stale bread, or the same quantity of Spratt's hound meal, will be found suitable for the evening meal, whilst in the morning biscuits soaked in gravy, or Spratt's oval biscuits given dry, will make an economical and efficient food. Young hounds should

be fed three times a day, and food given both dry and soaked. The hound glove must be used regularly as lustre of coat constitutes a matter of considerable importance, especially in the show ring. If necessary to wash, do so on the week previous to the show, so as to give time for the lustre to reassert itself on the coat, which, of course, has been removed by washing. Overfeeding must be avoided, as the Dachshund when too fat loses that looseness of coat so needful in a typical specimen. Exercise must be moderate, that given at a walking pace being the best, as these hounds are precluded from fast work.

THE BASSET-HOUND

This variety of hound was first imported into this country by the Earl of Onslow, but subsequently by the late Mr George R. Krehl and the late Sir Everett Millais, and these gentlemen must be considered the pioneers in establishing the breed in Great Britain. It is a French variety of hound that has by careful selection undergone remarkable improvements, although it must be admitted that the fatal system of too much inter-breeding has exercised a detrimental influence upon the constitution of the Basset, and this is one reason why a considerable proportion succumb to distemper.



SMOOTH-COATED BASSET-HOUND

Basset-hounds exist in rough and smooth varieties, and in general conformation they bear no small resemblance to the Dachshund, but if anything are built upon more substantial lines. The houndlike characteristics are particularly obvious in the region of the head and ears, and the benign expression of the face exists in its most perfect form. In a model type of hound the lines of contour from nose to stern are of most beautiful order. About twenty-five years since the Basset was an exceedingly popular variety, and the classes at the principal shows were liberally filled with some remarkable specimens of the breed, but at the time of writing it cannot be said that these diminutive hounds are as popular as many other breeds, but it is quite possible that a reaction may set in in favour of the Basset.

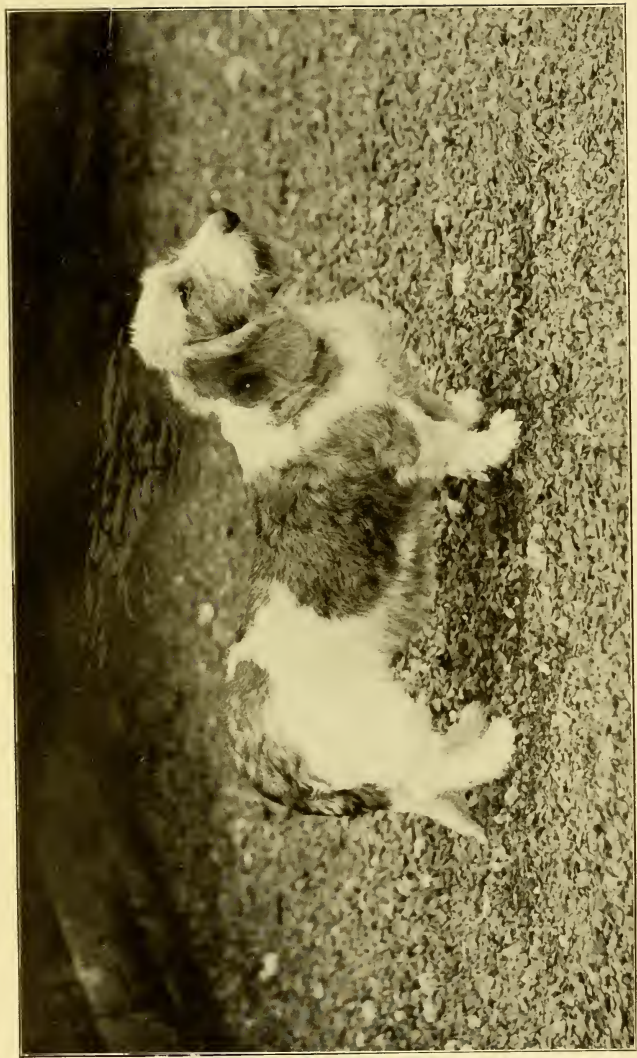
In France and Belgium any hound that measures less than 16 inches at the shoulder is spoken of as a Basset, the word itself meaning a low-set hound. There are only one or two packs of Basset-hounds in Great Britain, there being one at Slane Basset, County Meath, which comprises sixteen and a half couples of 13 to 14-inch smooth Basset-hounds, the pack being the property of the master.

There is also another one at Stainrigg, near Coldstream, Berwickshire, composed of ten couples of 12 to 14-inch Basset-hounds, which hunts the territory

hunted by the Duke of Buccleuch's and the Berwickshire Foxhounds, thus proving that the Basset is not, from a sportsman's point of view, at anyrate so far as the British is concerned, of any particular utility; in fact it never has been used to any extent excepting for companionship. For the last-named purpose it would be difficult to find an animal more suitable, its sweet temperament and lovable disposition rendering it second to no other canine companion.

The Basset-hound Club was founded in 1883 and established a Stud Book, in which the best specimens have subsequently been registered.

The smooth-coated Basset has always been in greater demand than the rough-coated, though the latter, so far as appearances go, is a more workmanlike-looking hound. The ground colour of the body is usually white, with black-and-tan, hare-pied or any typical Foxhound-coloured markings. As a rule the markings on the head and ears are fairly evenly distributed, but not so upon the body, the patches being of variable size and irregularly scattered. Little importance need be attached to this, provided the colour is typical. All Bassets have an exceptional degree of muscular and bony development in the region of the fore-quarters and breast, and the prominence of the latter, together with the shortness of the limbs, brings the body very



ROUGH-COATED BASSET-HOUND

HOUNDS

To face page 202

close to the ground; this also materially adds to the snake-like contour so much admired in these little hounds. The back and the loins must be long, with a graceful curve at the last-named region. Strong first and second thighs, clean but big hock joints, together with big-boned pasterns, are essential features of the breed.

Like all other hounds the chest must be deep, with the breast bone particularly prominent. Neck short and thick, covered by loose skin. Judges pay a good deal of attention to quality of the fore limbs, and the stouter in bone these are the better the hound. Lightness of bone constitutes a decided fault, as it predisposes to knuckling over at the joints. Not only must the fore limbs be particularly strong, but, what is equally important, they must have a good crook at the knees, ending below in broad feet, which turn outwards. This peculiar conformation of the limbs must be looked upon as illustrative of economy of material, the necessity for which has evidently arisen with the shortening of the limbs, though it is questionable whether the latter has been to the advantage of the breed. The head of the smooth-coated variety preserves the houndlike characteristics in a more marked manner than that of the rough-coats. It must be long and narrow, with little or no evidence of "stop"; be deep in the muzzle, have the cheeks hanging well

down, and ending in broad nostrils. The muzzle is square at the end, any tendency towards narrowness being strongly objectionable. The ears must be long, set on low and carried in a similar fashion to those of the Bloodhound, whilst the eyes are slightly sunken, almond-shaped, and display the haw. But it is not typical of these little hounds to display too much of the facial characteristics of the Bloodhound. Compactness and proportion, combined with a lively and graceful carriage of the body, constitute the necessary qualifications of the Basset.

Kennel Management and Hygiene. — Basset-hounds are not difficult dogs to keep in good condition, provided that they are regularly exercised, regularly fed, and properly groomed. Exercise must not be severe, as these hounds are incapable of undergoing an excessive degree of exertion, but condition necessitates a gradual increase of exertion in order to brace up the muscles and improve the tone of the circulatory organs, and the more fit these become the better the condition of the hound. Feed liberally on a flesh diet, and for this purpose boiled horse-flesh is as suitable as any food, from three-quarters to one pound being about the correct daily allowance of flesh; this may constitute the evening meal, but if the proprietor wishes to feed his hounds in the morning as well, dry hound meal

makes an excellent food. The free use of the hound glove, plenty of clean straw for bedding and thorough cleansing of the kennel are, in the main, the broad principles in the kennel management of Bassets.

CHAPTER X

THE WHIPPET

THE Whippet, Race or Snap dog, although of hound-like conformation, will not by many be regarded as a typical variety of hound; nevertheless a work of this description would, in the author's opinion, be incomplete without a brief reference to the Whippet, which is used to some extent for rabbit-coursing but principally for racing on a track. The chief patrons of the breed appear to be of the artisan class, and I think it is an indisputable fact that these little race dogs are in the greatest demand in mining districts, particularly amongst colliers, who are especially fond of the sport afforded by these dogs.

The Whippet has become a well-established breed and reproduces true to type. It was originally produced by crossing a Terrier with a Greyhound, together with the introduction of Italian Greyhound blood, and even in the present time some Whippet owners have occasional resort to the Terrier as an outcross in order to re-establish constitutional vigour and pluck, an effect that when judiciously employed is advantageous, as a sound constitution is an essential feature of the breed. The term "Snap"

dog has for a long time been used as synonymous with that given at the heading of this chapter, implying quickness in snapping at its game. Terriers were formerly used for rabbit-coursing, wild rabbits being caught and turned down in an open space in front of the dogs; and as this constituted a cruel form of sport the Terrier was abandoned for such purposes and experiments turned towards the production of a dog that was capable of coursing rabbits in their own, but natural, enclosures, thus resulting in the production of the Whippet. Like the Greyhound these race-dogs require constant training in order to keep them fit—hard muscles, together with a sound heart and lungs, being indispensable requisitions. The best weight for a Whippet is about 16 or 18 lbs., but the Whippet Club fix the weight at 20 lbs.; but such weight must not be taken too seriously because the show Whippet and the racing Whippet are often totally dissimilar in this respect. Again, colour is of very little importance, as a good Whippet can be any colour, but such colours as fawn, blue, brindle, black, red, white and combinations of these are the principal ones. Fawn predominates, but, as previously stated, no importance need be attached to this matter. The coat may be either rough or smooth, but broken-haired Whippets have never been in much demand. For show purposes the head must be long and lean, flat on the dome of the skull, and

have long powerful jaws. The cleaner the cut of the head the better. Fine rose-shaped ears and keen-looking eyes, together with broad nostrils, are features typical of the Whippet's head. The neck must be long, well-muscled, carried well up, and clearly defined in its outline; any tendency towards throatiness or a loose skin in this region is regarded with disfavour. The better defined the anatomical outlines the more accurate the conformation; this should be in nearly every essential a replica of the Greyhound, excepting the back, which is more arched at the loin. The shoulders are long, oblique, well laid with muscle yet elegant in form; the arms must be strong; the elbows carried close to the sides; the forearms strong, of goodly length, yet shapely withal. Pasterns long, strong and oblique, terminating in long well-split-up toes. Judges are very keen on quality of fore limbs, and to be typical the Whippet must stand well on its feet; in order to attain this desirable feature exhibitors of Whippets usually pay a great deal of attention to the nails, the rasping of which keeps the feet compact. Some Whippets are too short on the legs, others too long, whilst a third class are deficient in bone; bone and substance mean a *sine qua non* in the breed. The capacity of the chest is found in its great depth, but the breast must not be wide. The back and the loins require to be clothed with well-developed muscles, and the belly well tucked up at

flank. It is almost impossible for a Whippet to have the lumbar muscles too strongly developed. The croup is practically a continuation of the first thigh and buttocks. The former should be long, and the whole region well clothed with muscles. A neatly-turned stifle joint, long, strong second thighs, "clean" but broad hocks and strong, oblique pasterns, together with compact feet, are additional attributes of a well-shaped Whippet.

In racing the Whippet the track selected is usually about 200 yards, and the dogs are slipped from the leash by the starter at the snap of a pistol, each owner encouraging the competitor at the opposite end of the track by waving a rag or handkerchief, at the same time lustily shouting, thus contributing to the amusement and excitement of the contest. Racing contests are run according to the weights of the dogs, and are subservient to the rules adopted by the various Whippet racing clubs. Handicapping is a good deal practised but calls for the exercise of considerable skill on the part of the handicapper, who, like the referee in a football match, often finds a difficulty in satisfying interested parties.

Kennel Management.—Being short-haired and thin-skinned it is necessary, especially during the colder months of the year, to provide a Whippet with suitable woollen clothing, the chief desideratum being warmth combined with lightness; if a dog is

too fat the coat should be a thick one, as the wearing of this, with the addition of vigorous exercise, will help to sweat the dog, reducing any superfluous flesh. In summer a thin flannel coat is the best, as it helps to keep the coat down and improve the lustre of it. A fat dog is no use for running, neither is one that does not receive a regular amount of exercise. It is advisable to feed night and morning on such foods as raw beef, dog biscuits, or hound meal. To train a Whippet to follow a rider on horseback or behind a gig constitutes an invaluable means of keeping the animal in good hard condition. The use of stimulants before or after racing is to be deprecated, and it is a practice that assuredly produces premature decline of constitutional vigour, as all forms of alcohol have a most pernicious effect upon the strength of the heart and lungs; this stimulant exerting nothing beyond a temporary excitation of the vital forces.

CHAPTER XI

PORTABLE HOUND KENNELS

THE introduction of portable kennels for the housing of hounds, either individually or in packs, constitutes a comparatively recent innovation, nevertheless one that will be found very satisfactory to many hound masters. As these structures are tenants' fixtures the advisability of erecting such sometimes becomes as convenient as they are economical. There are many manufacturers of hound kennels, and the selection must be left to those contemplating purchasing such, but the author has found that the kennels made by Messrs Boulton & Paul of Norwich are superior to any with which he is acquainted.

Most of the buildings sent out by this firm are as ornamental as they are useful, and the prices reasonable, consistent with good workmanship.

Before erecting any of these portable kennels it is necessary to have the foundation laid, the best material for this purpose being concrete with a sound bottom. The drainage must also be provided for. If it can be so arranged, have the doors and runs facing the south or south-west, and place the kennel well away from trees, etc., as the presence of

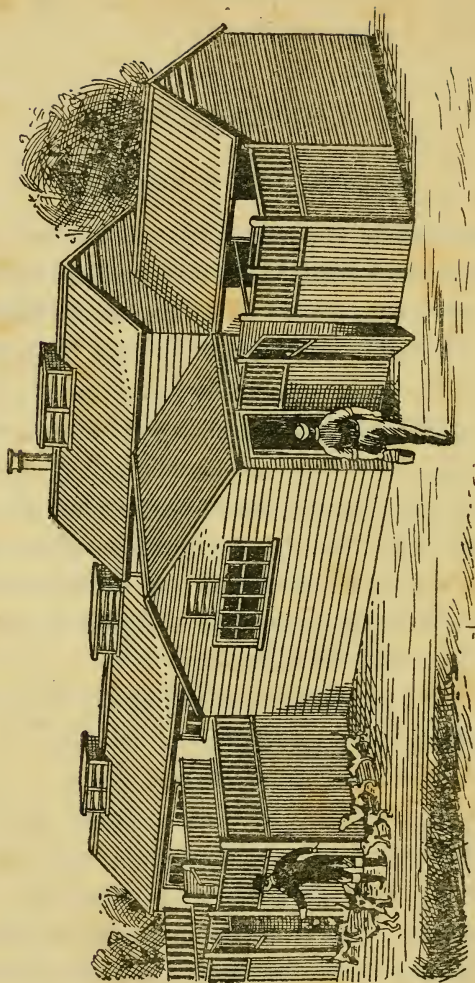


FIG. 1.

these only helps to render the kennel damp and the surrounding area moist—very often too moist to be satisfactory.

Fig. 1 represents a very useful form of portable



PLAN OF FIG. 1.

hound kennel. It comprises a boiling-house, feeding-house, house for bitches, house for sick dogs, together with a run for same. The boiling-house and feeding-house communicate, and the runs of the other kennels also have openings into the feeding-house. The runs are 18 ft. in length and the living-rooms well ventilated, the whole structure being very compact and admirably planned.

Fig. 2 shows a range of hound kennels. This kennel has a range of four runs and comprises a whip's room, a store, feeding and boiling-houses, four lodging-houses and a covered courtyard, the whole structure being of handsome design and the best workmanship, materials, etc.

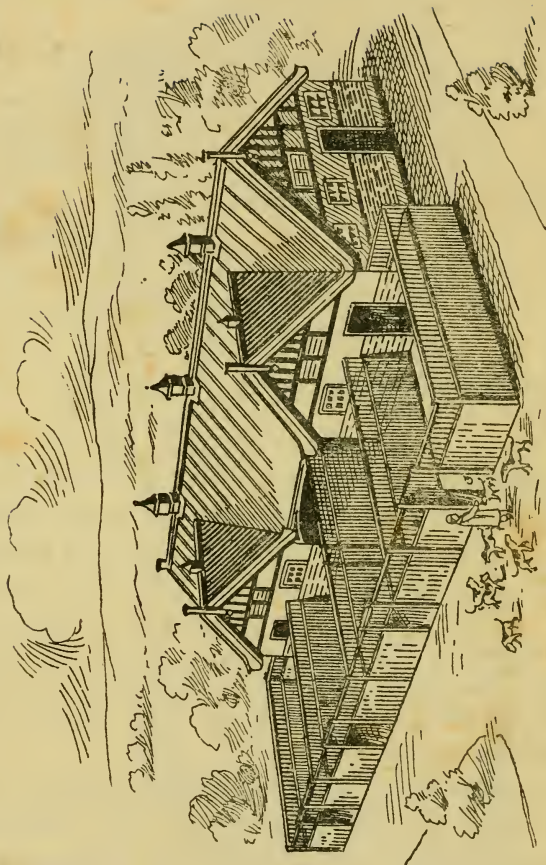


FIG. 2.

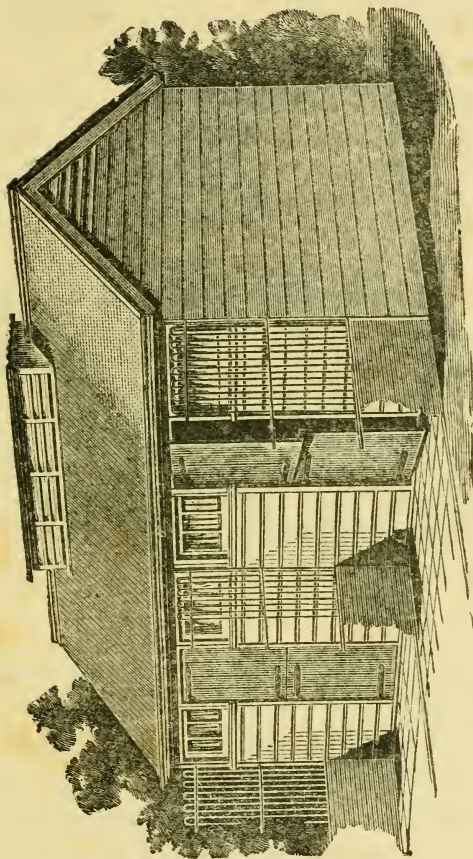


FIG. 3.

In Fig. 3 a useful double kennel is shown and is very suitable for keeping Boarhounds, Greyhounds, Deerhounds, etc., in. The kennels are 7 ft. high at the back and 6 ft. at the eaves.

One advantage possessed by the kennels depicted in Fig. 3 is that the runs are covered in, thus protecting the hounds from exposure to the heat of the

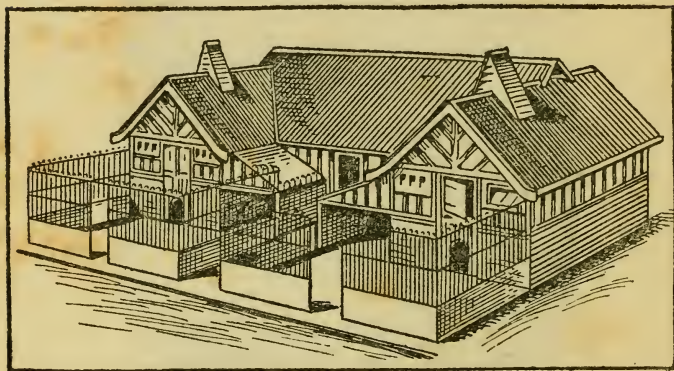


FIG. 4.

sun, rain, etc. Anyone contemplating keeping a small kennel of such hounds as Wolfhounds, Deerhounds, Boarhounds, Greyhounds, Borzois, etc., cannot do better than purchase portable kennels, as these erections have so much to recommend them.

Further information can be had from the manufacturers of the kennels, as depicted in the several illustrations.

CHAPTER XII

DISEASES AFFECTING THE EYES

THE dog is a frequent sufferer from various forms of eye trouble, some of which are of a temporary, others more or less of a permanent, nature. Most chronic affections are of an incurable nature, but many acute affections become sub-acute in form, and in this manner may permanently injure the eyesight. Congenital defects are occasionally observed, usually calling for surgical treatment. The eyelids, the lachrymal gland, its ducts, the mucous membrane lining the eyelid, or the eyeball itself, are all liable to participate in injury or disease; but hounds are not predisposed to any special form of eye trouble beyond those common to other breeds. One or both eyes may be implicated in any disease, and it frequently happens that when one is affected by acute inflammation the other eye participates. One of the commonest affections is that known as

Ophthalmia

or inflammation of the eyes, which arises through a variety of causes, some of an external nature, others

as part of a general disease. Ophthalmia may, for convenience, be divided into (a) Simple, (b) Specific.

Simple Ophthalmia

As the name implies, this is the simplest form of inflammation, and commonly traumatic in its origin, *i.e.*, arises from external injury, such as a wound to the eyelids, the admission of some irritating material lodging on the globe of the eye, or through a chemical irritant of some kind. This affection is denoted by intolerance to light, the flow of tears over the face, redness of the conjunctival membrane, and a considerable degree of redness of the eyeball itself. If the irritation is prolonged the cornea gradually participates and assumes an opaque appearance, either in the form of spots, or as one involving the whole of its surface. The participation of the cornea may be regarded as one of the undesirable results of ophthalmia, and is especially liable to occur when unsuitable or no treatment is adopted. It is a fallacious idea to suppose that ocular troubles will do as well without any treatment, though unfortunately a dictum which is persisted in by many owners. A permanently-clouded condition of the cornea renders a hound unsound and unsuitable for work. A partial opacity of the cornea is of less significance than a total one.

Treatment.—In treating cases of this nature a good deal depends upon the duration and severity of the malady, and upon the causes operating in its production. Needless to say that if any foreign body gains admission to the eye it should be removed at once. Follow this up with the application of some sedative lotion, such as:—

Sulphate of zinc	40 grains.
Solution of sulphate of atropine .	1 drachm.
Powdered boracic acid	20 grains.
Water to 8 ozs.	

Label Eye Lotion, and apply three or four times a day, by bathing the eyes with this lotion and a piece of boracic lint. Lead lotions ought not to be used, as they have a tendency to cause precipitation of the albuminous matter in the cornea, thus favouring opacity. Two grains of corrosive sublimate added to six ounces of water makes a very useful eye lotion for simple ophthalmia. Boracic acid ointment is a simple but efficacious remedy for milder cases of this nature. An infusion of camomile is suitable for bathing the eyes, its soothing effects being beneficial.

Treatment, to be successful, must be persevered with, and the opacity of the cornea dealt with according to instructions laid down under that heading.

Specific Ophthalmia

This is an extremely troublesome disease, and one

that usually ends in disorganization of the eyesight. In the horse there is a corresponding affection, equally destructive in its effects. Probably many will object to the use of this term "specific," so far as applicable to ophthalmia in the dog, but the writer is convinced that the term is justifiable; but whether it ought to be regarded as an ocular manifestation of distemper, or as an affection apart from that malady, it is difficult to determine. In any case its progressive and disastrous effects are well known to those having any acquaintance with this affection. Both eyes are usually affected, and the disease is characterized by inflammation of the eyes, intolerance to light, weeping, injection of the blood-vessels of the eyeball, opacity of the cornea, followed by ulceration of it at one or more points; commonly the cornea is perforated by the ulcer, and the aqueous humour escapes. Whenever there is an attempt at repair this seems to be overshadowed by secondary attacks, until the sight is finally destroyed. A modification of recurrent ophthalmia does occur in distemper, commonly in one eye, but this seems to be of a milder type than the one now under discussion. Many M.F.H.'s will be acquainted with the malignant eye trouble alluded to, and know what an undesirable affection this is. So far as the writer's experience goes, any treatment is of very little use, and it is questionable whether it is economical to

treat hounds affected in this manner. If any treatment is adopted the most that can be done is to keep the kennel scrupulously clean, wash the eyes frequently with a weak solution of corrosive sublimate, two grains to eight ounces of water, or with a weak solution of chinosol, say five grains to eight ounces of water, three or four times a day. After the lotion a little of the following ointment can be used:—

Boracic acid ointment	1 oz.
Yellow oxide of mercury ointment	$\frac{1}{2}$ drachm.
Atropine ointment	1 drachm.

Mix, and place a small piece in each eye night and morning. In addition to this it is advisable to isolate the affected animals, which are usually puppies, hence the reason why there are grounds for associating this affection with the virus inductive of distemper.

Opacity of the Cornea

As previously stated this may be temporary or permanent, and due to any of the causes considered under the foregoing conditions. A clouded condition of it is very common in young dogs during an attack of distemper, but a blow over the eye is not an uncommon cause. The same remark applies to its production by other injuries.

Treatment.—Astringent applications, such as a

solution of nitrate of silver, two grains to the ounce of distilled water, or a solution of zinc sulphate, five grains to the ounce of water, are indicated in the treatment of this affection. Most cases of opacity of the cornea, when in existence any length of time, become permanent, but the interference with vision will not only depend upon the size of the opacity but also upon its situation. Thus, for instance, a small speck at the border of the cornea will be less likely to interfere with the vision than one immediately over the pupil, when the latter is acting under the ordinary conditions of light.

Injuries to the Eyelids

The upper or lower eyelids, or both, are occasionally torn, either in fighting or through some other agent, but the extent of the injury varies considerably. It may be the skin only which is torn, or the whole thickness of the eyelid, consequently the degree of inflammation set up varies in accordance with the injury. Ophthalmia is a common result, and need be treated in the manner prescribed under the name of that malady. It is a debatable point whether it is a good thing to suture the eyelids or not, but the writer believes in the application of sutures, especially if such are carefully adjusted, and antiseptic precautions employed, and the injured eye protected from further injury by the animal itself; in fact, the

latter precaution is one of the most important parts of the treatment. The infection is denoted by supuration, and this delays successful treatment. If sutures are used, fine wire is as good as anything, but pins can be employed instead. Many prefer adhesive plaster for bringing the torn edges together. After being carefully adjusted paint the part with Friar's balsam or styptic collodion.

Inversion of the Eyelids (Entropium)

In this complaint the eyelid is turned inwards, and sets up a considerable degree of ophthalmia, as the eyelashes may be turned against the eyeball. The only remedy for this trouble is an operation in which a portion of the upper eyelid is removed.

Eversion of the Eyelids (Ectropium)

In this affection the eyelid is everted or turned outwards, exposing the conjunctival membrane; it is the upper lid that is commonly affected, and in order to remedy this defect the mucous membrane lining the everted lid has to be scarred by the application of a caustic point.

Both this and the previous abnormal condition necessarily require professional skill for their treatment.

Cataract

This is a permanently-diseased condition of the

crystalline lens, its capsular investment, or a combination of both in the diseased activity.

Cataract may be partial or it may be complete, therefore the visional defect is proportionate to the area of the lens involved. Aged dogs are those most subject to this trouble, this being known as senile cataract, which, like all other forms of cataract affecting the dog, is incurable. It is not difficult to recognize advanced forms of cataract, but in the earliest stages of the disease it is very troublesome to do so. In partial cataract the specks are extremely minute to begin with, and from these radiating lines gradually extend over the surface of the lens, finally becoming confused, until the whole structure of the lens is more or less involved.

Glaucoma and Amaurosis

This disease consists of a bulging of the eyeball, due to an excessive secretion of aqueous and liqueous humours of the eye, causing the dog to have short sight. One or both eyes may be affected, but it is a somewhat uncommon ocular disease.

Amaurosis occasionally occurs in hounds, being more popularly known by the title of glass eye, owing to the glassy appearance assumed by the organ. So far as appearances go, the eye is normal, yet the animal is totally blind. The optic nerve seems to be in a paralytic state and incapable of

transmitting the rays of light from the retina to the nerve centre. The best evidence of amaurosis is afforded by the pupil of the eye, which remains widely dilated in a strong light. The causes of this eye trouble are variable, sometimes resulting from injury, which induces pressure upon the optic nerve. Excessive bleeding is sometimes a cause.

Diseases affecting the Skin and Ears

The cutaneous affections of the dog are fairly numerous, but, what is still a worse feature, many of these are extremely troublesome, demanding the exercise of patience, perseverance, and a reasonable amount of skill for their successful treatment. Some skin affections are so closely allied in their clinical features that it not only requires considerable experience, but also the use of the microscope for their satisfactory demonstration. All those who keep hounds, no matter individually or as a pack, are well enough aware of the troublesome nature of many skin diseases. This is partly accountable for through errors in diagnosis of the disease, consequently the results are often very unsatisfactory. Let us take, for instance, parasitic mange, the early diagnosis of which is of vital importance, otherwise the disease may spread throughout the whole kennel. Popular terms for skin diseases in the dog are,

blotch, red mange, parasitic mange and black mange, the last named being one of the worst skin diseases affecting the dog. The term blotch is a very ambiguous one, and might be expressive of parasitic or non-parasitic mange. It is frequently employed synonymously with that of red mange. Eczema is also another term largely used, and unquestionably covers a multitude of skin diseases, but nevertheless it is a very convenient designation, and one that usually appeals to the dog-owner as sufficiently distinctive.

Eczema

This is a very common skin disease, assuming acute or chronic forms, and making its appearance upon any part of the body, but particularly prone to attack such parts as inside the thighs, under the fore-arms, on the face or round the eyes, on the nose, breast, etc. It is not, however, confined to these situations, and is occasionally seen in its acute form between the toes. The preliminary stage of this affection is really erythema, or congestion of the skin, denoted by redness, either as an isolated patch or in a diffuse form, the latter being a fairly common manifestation of it. This is succeeded by a considerable degree of irritation, and the appearance of minute vesicles upon the inflamed patch. These subsequently rupture, and the surface becomes

moist, the affection then being spoken of as “moist eczema.” The animal aggravates the trouble by scratching and licking the part, which is often of a very angry-looking nature. If there are several patches the disease will be observed in its various stages—progressive and retrogressive. When the patches are in the latter stage they become dry and scurfy, and the same affection may subsequently become the seat of a secondary attack. Chronic eczema is usually denoted by a dry and scurfy condition of the skin, more especially around the margins of the ears, the points of the elbows, the points of the hocks, buttocks, etc. The skin becomes thickened, the hair shed or broken across, and the part irritable. Although eczema is capable of arising through a variety of causes, either chemical, mechanical, parasitical or constitutional, there is no doubt that hereditary predisposition is favourable to its production. Disorders of the digestive apparatus, such as the irritation induced by worms or unsuitable food, congestion of the liver or kidneys, are answerable for some cases of eczema. The causes are usually of an obscure nature, and treatment has to be directed towards the removal of the local signs.

Treatment and Management.—An endeavour must be made to try and find out the cause, and as a rule it is a fairly good practice to begin with a dose of worm medicine, as so many hounds are infested

with these parasites, and the sooner these pests are got rid of the better. The writer does not advocate that every dog affected with eczema should be treated for worms, which would probably do more harm than good, more especially if the animal is in a low condition. A popular but fallacious practice is that of administering repeated doses of Epsom salts, sulphur, and other laxative medicines; whereas an equally absurd one is that of depriving the dog of its flesh food, which of all articles of diet for this animal is the most suitable. Starchy foods are more liable to induce eczema than any others, and there is no difficulty in proving the truth of this statement than by feeding a dog for a prolonged period upon a rich carbonaceous diet. Begin treatment by giving from one to three grains of camomile, in the form of a pill, and if it is a case of acute eczema, with the animal in poor condition, follow it up with dessertspoonful doses of extract of malt, or cod liver oil emulsion, in the same doses twice a day. In addition to this give the following mixture:

Acetate of potash	.	.	2 drachms.
Tincture of orange	.	.	1 oz.
Tincture of nux vomica	.	.	1 drachm.
Dialysed iron	.	.	2 drachms.
Water	.	.	8 ozs.

Dose for hounds is one tablespoonful night and morning.

As a local application boracic acid ointment will suffice for the simple cases, but for those of a more obstinate nature the following should be used:

Creosote	2 drachms.
Ammoniated ichthyol	$\frac{1}{2}$ drachm.
Boracic acid ointment	2 ozs.
Precipitated sulphur	2 drachms.
Bicarbonate of potash	2 drachms.

Mix and rub on the sores night and morning.

The chronic manifestations of eczema seem to respond better to tarry applications than any other remedies, for which purpose an ointment composed of the following will be suitable:

Tar ointment	1 oz.
Precipitated sulphur	$\frac{1}{2}$ oz.
Lanoline	1 oz.

Mix and rub well into the scurfy patches for ten minutes night and morning. The addition of a drachm of creosote or a drachm of red oxide of mercury ointment to each ounce of the ointment previously prescribed can very often be employed with benefit. As a constitutional remedy for this affection arsenic stands pre-eminent, and is most conveniently administered either in the form of Fowler's solution of arsenic, or Donovan's solution. From five to ten drops in conjunction with the same quantity of dialysed iron in a tablespoonful of water, given night and morning, will meet the requirements.

This treatment must be persevered with for a month, a camomile purge then given, and the arsenical mixture recommenced in a week or ten days' time. The idea of leaving off the arsenic for the period specified, and also the administration of a cholagogue laxative, is to expel any traces of arsenic that may have accumulated in the system. Feed liberally on raw meat, keep the kennel clean, change the bedding frequently, and place the animal under the best conditions obtainable, not, of course, neglecting exercise, which has very often a good deal to do with the production of eczema. The moist forms of eczema are benefited by dusting the surface with some protective powder, of an antiseptic or astringent nature, such as one part of powdered boracic acid to three parts of powdered starch; lotions are also useful for a similar purpose, such as an ounce of creosote to eight or ten ounces of methylated spirits of wine, freely wetting the surface with it. In some cases baths do good, whereas in others they are absolutely harmful. Chronic forms of eczema are recurrent, and prolonged treatment has to be indulged in before a cure can be anticipated.

Parasitic Mange

Two fairly common forms of mange infect the dog, one being known as sarcoptic mange, produced by the sarcoptic mange acari, which parasites live upon

the surface of the skin, or, at anyrate, in galleries beneath the superficial layer of the epidermis. These parasites set up a good deal of irritation, which may be accepted as one of the earliest indications of the disease. The male acari are much smaller than the females, and nothing like so numerous, but the latter are very prolific, so that the species is freely perpetuated. A pregnant female may rapidly spread the disease over the body, but the destruction of the parasites or their ova, if such be complete, puts an end to the disease; but mange is often of a very recurrent nature, perhaps less so than in the horse. Sarcoptic mange is not, as a rule, a difficult disease to cure, but its infective nature renders it very liable to contaminate a whole pack of hounds, if reasonable means are not adopted to prevent its transmission from one dog to another. Mange in the fox is apparently due to a different species of parasite, but whether it can be communicated from this animal to the dog is doubtful. Infection may be direct or indirect; by direct infection we mean the contact of the diseased with the healthy; indirect, on the other hand, through some other media, such as collars, brushes, clothing, kennel fittings, bedding, feeding-vessels, etc. One mangy dog may in a locality transmit the disease to a large proportion of other dogs in the same or other localities, and hence the difficulty in fixing the original source of

infection. This shows how necessary it is for people having mangy dogs to confine them within the precincts of their own premises, and not disseminate an unwholesome complaint amongst the dogs of neighbours. In some instances mange is associated with neglect, and negligence is evidence of idleness, and idleness is one of the greatest curses of mankind. The other variety of parasitic mange is that known as follicular, or black mange, due to the invasion of the hair follicles and sebaceous ducts by acari, known as *Demodex folliculorum*. Black mange is not difficult to recognize, but it is a most intractable malady, yet less infective than the sarcoptic variety. Months often elapse before a cure is effected, and even then it is not an easy matter to decide whether an animal is completely cured or otherwise. Significant features of the latter form of disease are that the dog is more inclined to shake itself than scratch; the skin becomes blackened, and of a deep slaty hue in patches, and when squeezed the follicles either suppurate or bleed. These are the essential clinical features, but the diagnosis is necessarily based upon the presence of the acari, as revealed by examination with a low power of the microscope. The acari are elongated in the body, whereas the sarcoptic acari have a rounded body, and only four pairs of legs.

Treatment and Management.—In every case of mange it is advisable to make what may be vulgarly

termed "a clean sweep" of the disease, *i.e.*, dress the animal from head to foot, there being no necessity to clip in the case of hounds, only, whatever the dressing used, it must be rubbed thoroughly well into the skin, and every inch of the body surface gone over. The dressing ought to be repeated twice a week, the bedding changed daily, and all sources of infection, such as benches, rubbing-posts, feeding-vessels, scalded every day, and then washed with a disinfectant solution. Most cases of sarcoptic mange are greatly benefited by giving the dog a bath of sulphuretted potash, say twice a week. For this purpose dissolve half an ounce of the potash in each gallon of water used. The best plan is to dissolve the amount of potash required in a quart of boiling water, and then add water to make it the proper strength. Even when there is only one or two patches of mange on the body the baths recommended will do a lot of good, and besides have the advantage of being destructive to fleas and other pests of the skin. A very useful mange dressing is composed as follows:

Oil of tar	.	.	.	.	.	2 OZS.
Creosote	.	.	.	.	.	1 OZ.

Mix and then add whale, rape, colza, linseed, train or other cheap oil to make to the extent of a pint, and subsequently adding an ounce of bicarbonate of potash, dissolved in four ounces of water, so

as to make an emulsion of the whole. The addition of four ounces of flowers of sulphur, or of the same quantity of storax, is invaluable in cases of mange; in fact, sulphur seems to be almost a specific for sarcoptic scabies.

In black mange (follicular) the treatment is of a very tedious nature, as whatever medicaments are employed there is a great difficulty experienced in reaching the parasites, owing to the sheltered position they occupy. Unless it is a valuable hound the author considers the most economical plan is to destroy the animal, but of course this would not be done unless the diagnosis has been confirmed, *i.e.*, the detection of the parasites characteristic of this affection. If treatment is decided upon the best plan is to shave the hair off all around the diseased areas, which are commonly situated about the shoulders, neck, throat, back and sides, having a blackish appearance, and then dress with the following liniment:

Oil of eucalyptus	2 ozs.
Creosote	2 ozs.
Liquor potassæ	3 ozs.
Ichthyol	2 drachms.
Olive oil	10 ozs.
Paraffin	5 ozs.

Dissolve the ichthyol in the oil of eucalyptus, add the creosote, then the paraffin oil and the olive oil,

finally the liquor potassæ, shaking thoroughly together, so that the liniment is to a certain degree emulsified. This dressing requires applying three or four times a week, the bedding to be changed frequently and the dog allowed plenty of exercise; but all this treatment must be supplemented with not only the best of hygienic conditions, but also internal medication, such as the daily administration of from five to ten drops of powdered solution of arsenic, a drachm of which may be added to the mixture recommended under the heading of the treatment for eczema. The mere fact of the hair beginning to be regenerated must not be accepted as positive evidence that the disease is cured, its recurrent nature being well known to veterinary surgeons, though it would probably be more correct to regard its reappearance as a continuation and not recurrence of the original disease. From three to twelve months is commonly requisite for the eradication of this trouble.

It may not be generally known, but follicular mange has been observed in the ox by continental veterinary surgeons, and there is a possibility of its communicability from this animal to the dog.

Ringworm

This is not a common complaint in the dog, although it does occasionally become affected with it.

It is due to the presence of a vegetable fungus invading the hair follicles and shafts of the hairs, causing the latter to break off, which gives the area of disease a stubbly appearance. This trouble is characterized by the formation of circular patches upon the skin, which are of a dry, scurfy appearance, of a slaty colour, spreading from the centre to the circumference. As ringworm is common in calves it is quite possible that the dog may contract it from this source of infection, but it is not an uncommon disease amongst cats, so that a cat may really transmit the disease to a dog, or it may be to man. There is a tendency for ringworm to exhaust itself, so that spontaneous recovery is by no means unknown. The best treatment is to paint the part with iodine liniment, or with a solution of hypsulphite of soda. If an ointment is preferred chrysarobin ointment is the best remedy, but there are many other applications suitable for ringworm, and whatever is applicable in the case of man and other animals is, as a rule, equally suitable for the dog.

Pityriasis Versicolor

This skin trouble is mostly seen in young dogs, say under twelve months, but occasionally in older ones. It is due to a vegetable parasite, and of an infective nature, so that one hound may convey it

to another. It begins with diseased patches of skin, circular in outline, similar to those observed in ringworm.

The spots are at first very small, and may appear upon any part of the body, head or limbs. Sometimes they attain the size of a two-shilling piece. Treatment comprises dressing the parts with the following lotion:

Sulphurated potash	.	.	.	3	ozs.
Boiling water	.	.	.	1	pint.

Apply to all the diseased patches daily, taking particular care to thoroughly wet the skin. Five-drop doses of Fowler's solution of arsenic should be given with the food, three or four times a day; but as hounds are commonly fed only once a day ten-drop doses can be allowed for a full-grown hound, but this should not be continued for longer than three weeks at a time, to be followed by a four- or five-grain pill of calomel. At the end of a week or ten days' time the arsenic may be repeated. This method of the administration of arsenic is applicable in the case of all skin diseases in hounds, and it may be accepted, as a general rule, that it is a drug which proves beneficial in most chronic skin diseases.

CHAPTER XIII

DISEASES OF THE RESPIRATORY ORGANS

RESPIRATORY troubles are of rather common occurrence, not only in hounds but in all other breeds, and when such complaints do come on careful management is required in order to tide the animal over the critical phases of some of these chest affections. One of the commonest troubles is

Pneumonia

either as an independent affection or as a complication of that deadly scourge distemper. Pneumonia, or inflammation of the lungs, may be confined to one side of the chest or affect both sides, *i.e.*, either the right, left, or both lungs be implicated, and the gravity of the malady is to a large extent regulated by the area of the lung involved in the morbid process. It is usual to speak of pneumonia as either "catarrhal" or "lobular," and "croupous" or "lobar," in accordance with the areas of the lungs affected. When the pneumonic form of distemper makes its appearance in a kennel of hounds there is generally a heavy percentage of deaths, equalled only by the bilious form of that malady. Pleurisy

is often associated with pneumonia, hence the term pleuro-pneumonia probably expresses the true condition of affairs better than that expressed by pneumonia or by pleurisy. Most lung inflammations, at any rate such as are associated with distemper, begin as catarrhal bronchitis, *i.e.*, inflammation of the bronchial tubes, which is liable to extend into the smaller air tubes, and finally into the alveoli or air spaces of the lungs, producing catarrhal pneumonia. It is quite possible that this form of pneumonia is set up by micro-organisms—either micrococci or bacilli—at anyrate bacteria of some kind.

Symptoms.—When a hound puppy has distemper it is needful to carefully watch it for the onset of lung trouble, though doubtless such does exist in the majority of cases of distemper, yet it may be so slight as to escape detection. In its development it is of a very insidious nature, but speedy in its termination, and unless prompt measures are employed the chances of successful treatment—though not very hopeful at the best—are small. In addition to the ordinary catarrhal signs, prostration, etc., the bronchitis is plainly marked, and the coarse râles characteristic of bronchitis implicating the larger air tubes give place to sounds of a more wheezy and catching character, as though the dog was going to be suffocated. The repeated coughing

affords the animal no relief, and it seeks such positions as will afford it the most fresh air, as a space at the bottom of the kennel door or any other chink where a draught comes through. The internal temperature is generally about 105° Fahr.; the breathing is quick and extends to the flanks, but at the later stages of the malady the cheeks (flews) are used as an auxiliary for pumping air in and out of the lungs; this is known as oral breathing, and is usually precursive of a fatal issue. The temperature may run up to 107° Fahr., or a trifle higher, but the dog rarely lives many hours under these circumstances. When pleurisy is present friction sounds are present during the early stages of the trouble, but with the advent of effusion they disappear. If the malady takes a favourable course and the fluid is reabsorbed the friction sounds may again reappear, but in a modified form. Distemperic pleuro-pneumonia is, in the writer's experience, a very low form of disease; the reparative powers of the tissues are weak, whilst the changes observable post-mortem are generally extensive, implicating lungs, pleural membranes, pericardium, mediastinum and lymphatic glands in connection therewith. When pneumonia develops independently of distemper the writer believes that it is much more responsive to treatment, probably accountable on the ground that the animal has not suffered

from the severe exhaustion so characteristic of distemper.

Treatment and Management.—A dry kennel, warm clothing for the body, pure air, and unremitting attention are indispensable factors in the management of a hound when affected with this trouble. Distemperic pneumonia, being an infective malady, calls for immediate segregation of the animals attacked, but it is no use to pick out the infected ones from amongst the healthy unless due precaution is exercised in regard to the latter. The temperature of all the puppies should be taken night and morning, and directly any single member shows the slightest rise above the normal—which ought not to exceed 102° Fahr.—it should be at once isolated and placed under the best circumstances possible. Counter-irritation certainly constitutes a valuable means of controlling advancing disease in connection with the lungs and adjacent structures. Mustard paste is a severe remedy and requires to be employed with discretion, and in order to diminish the severity of its effects the author considers that it is better to combine equal parts of linseed and mustard, making this into a paste with warm water and then smearing it over the sides and front of the chest, but not beneath the arms, otherwise the mustard will produce discomfiture and useless pain, which aggravates the malady already in existence. As an alternative

ordinary mustard alone can be used and then washed off in half an hour's time. Other forms of counter-irritation are hot-water flannels, mustard poultices, linseed or oatmeal poultices, cantharides liniment, turpentine stupes, ammonia liniment, red blister ointment, etc., and any of these can be employed as substitutes for the agents first of all recommended. Repeated blistering is pernicious, whilst counter-irritation is useless if the pneumonic symptoms have become firmly established; in fact success can only be hoped for in the incipient stages. Counter-irritation must be followed by internal medication, and for this purpose the mixtures as per prescription below can be employed:

Iodide of potash . . .	2 drachms.
Bicarbonate of potash . .	$\frac{1}{2}$ oz.
Tincture of senega . .	1 oz.
Ipecacuanha wine . .	1 oz.
Carbonate of ammonia . .	2 drachms.
Syrup of lemon . . .	3 ozs.

Chloroform water to make 12 ozs.

Directions for Use.—Shake the bottle, and give from a dessertspoonful to a tablespoonful three times per day to each affected hound. Continue this treatment until an improvement is sufficiently marked, and then substitute the following mixture:

Ammoniated tincture of quinine .	1 oz.
Tincture of cinchona bark . .	1 oz.
Water	10 ozs.

Directions.—One tablespoonful night and morning.

In addition to the treatment already indicated the system requires good nourishing support, along with alcoholic stimulation, in order to enable the animal to tide over the critical stages of the disease. Egg flip is as suitable as anything else; it is made by taking four ounces of brandy and four ounces of cinnamon water, then beating up the yolks of two eggs, adding to these half an ounce of refined sugar, subsequently blending the whole. The dose for a hound is one or two ounces every three hours. Both bovril, virol and Valentine's meat juice, likewise Brand's essence of beef, as well as minced raw beef, are all useful for supporting the system, and any one of the articles named can be used.

A moist atmosphere is favourable within the kennel, and the best means of obtaining this is by means of medicated steam. A bronchitis kettle does very well for this purpose, and the steam may be medicated by adding an ounce each of oil of eucalyptus, spirit of camphor, turpentine and creolin, or any of these can be used separately for the same purpose. If the atmosphere in the kennel is kept constantly surcharged by this vapour it will materially facilitate resolution, but proprietors must not be misled into an erroneous conception concerning certain proprietary articles advertised. No inhalation is capable of curing distemper, and the only

utility of medicated steam is to encourage the discharge from the respiratory passage. That form of pneumonia supposed to originate from exposure to cold is practically treated upon the same lines.

Bronchitis

Bronchitis, or inflammation of the bronchial tubes, is a tolerably common trouble amongst hounds, but when it does occur it is generally associated with distemper, and has been considered when speaking of the previous disease. It may be acute or chronic, but it is commonest in its acute form, being accompanied by a certain amount of febrile disturbance. The inflammation starts into existence in the larger bronchial tubes, and if allowed to run on unchecked has a tendency to extend into the medial and smaller air tubes, possibly ending in catarrhal pneumonia (which see).

It is customary for veterinarians to speak of bronchitis as being induced by chemical, mechanical, parasitical and specific causes. The chemical result from the inhalation of irritating vapours; the mechanical through the accidental admission of medicine, etc., into the windpipe; and as parasitical when the air tubes are invaded by threadworms—*Filiariæ bronchialis canis*—worms that correspond to those producing hoose in cattle and sheep, but fortunately for the dog this is a rare cause of

bronchitis. Under the heading of "specific" causes the organisms of distemper are of first importance, and a frequent cause. Acute bronchitis may terminate in the chronic form, or the latter resolve itself into the former, though both are somewhat unusual in the dog. It is not a difficult matter to recognize the existence of bronchitis in a hound, the bronchial râles being of sufficient diagnostic importance, and the louder these are the less serious the trouble. In chronic bronchitis five-grain doses of iodide of potash given night and morning in a tablespoonful of water is a useful remedy, but for the acute form of the disease the following mixture should be used:

Syrup of squills	.	.	.	.	1 oz.
Ipecacuanha wine	.	.	.	.	1 oz.
Glycerine	.	.	.	.	5½ ozs.
Paregoric	.	.	.	.	½ oz.

Mix, and give one dessertspoonful night and morning. Medicated steam, together with hot linseed and mustard poultices, are invaluable adjuncts in the treatment and management of bronchitis.

Pleurisy

The pleural membranes line the chest wall, and are reflected over the lungs, and, as previously stated, when the latter are inflamed the pleural membranes are very liable to participate, just in

the same manner as the pericardium may become involved when pleurisy occurs. The author's experience leads him to believe that inflammation of the heart sac is a frequent accompaniment of pleuritis when such is concurrent with distemper. The pain present in pleurisy is known as pleurodynia, and it becomes most obvious when the animal attempts to cough, hence the latter is always of a short, suppressed, dry character, the breathing laboured, the temperature usually about 104° Fahr., and the dog has no inclination either for exercise or food, but remains persistently standing, or else in a semi-recumbent attitude. Effusion, or dropsy of the chest, is common in pleuritis, and if severe dropsical swellings (*Anasarca*) may make their appearance, especially about the breast.

Treatment.—Warmth and a moist atmosphere are indispensable features in the management of this trouble. Counter-irritation is necessary, though not adopted by all veterinary surgeons. Five-grain doses of iodide of potash night and morning is a most useful drug as it favours absorption of the fluid. Painting the chest with iodine liniment is an excellent form of counter-irritation, but with reference to this matter see "Pneumonia," and also the treatment prescribed under the heading of that disease, the general management of which is practically the same in the two complaints.

Catarrh (Coryza)

Although catarrhal symptoms as a rule stand pre-eminent in distemper, such are not by any means significant of that malady, any more than they are of the more benignant trouble catarrh, which of itself is a comparatively trifling affection. Catarrh, or coryza, must of necessity be accompanied by an increased secretion from the mucous membranes lining the nasal and ocular cavities. The preliminary stage of such congestion is indicated by redness and dryness of the membranes, succeeded by excessive moisture. The eyes are intolerant to light, the dog drowsy, and has a variable degree of lassitude. Sometimes there is a cough, but this must not be accepted as a symptom of coryza. Very little treatment is required in cases of this nature, the most important matter being to isolate a puppy directly it manifests the slightest signs of catarrh. This timely precautionary measure may be the means of checking an outbreak of distemper, but under any circumstances it will enable the master of the hounds, or such as are responsible to him for the welfare of the pack, to regulate the well-being of other members of the kennel. In exceptional instances nasal catarrh is induced by a peculiar form of parasite invading the nasal passage; the worm referred to is white or creamy in colour and technically known as *Pen-*

tastoma tænoides, which is an extremely irritating parasite attaching itself to the mucous lining and causing the dog a great degree of discomfiture. It is constantly sneezing and sometimes dislodges the parasite during an attack. A nasal douche of salt and water is the best remedy.

CHAPTER XIV

RHEUMATISM, KENNEL LAMENESS OR CHEST FOUNDER

FOR generations this troublesome complaint has been well known to masters of hounds, in fact to all kennelmen who have had much experience with dogs; nevertheless, the sands of time have not rendered this affection any less prevalent than heretofore.

Kennel lameness, as the name implies, is at once suggestive, indicating as it does a form of lameness arising from influences direct or indirectly attributable to the kennel. The specific epithet "chest founder" is equally dogmatic in its meaning, pointing to a "foundered," rigid, or bound condition of the muscles surrounding the chest and breast, more especially the latter. It may be canine phraseology, but the terms are just as useful as rheumatism, though perhaps as convenient when it comes to particularize upon the nature of the malady. Rheumatism assumes both acute and chronic forms, and when it exists in its acute form it has, in addition to the muscular stiffness and pain, an accompanying degree of fever, sometimes of a rather severe type. The author regards chest founder as a chronic mani-

festation of this complaint which is even less responsive to treatment than an acute attack. Kennel lameness has always been attributed as the result of hounds lying on a damp floor, or else housing in a kennel that is damp in some respects. This brings us to the question as to whether a clay or a sandy soil is the best for the erection of a hound kennel upon; opinions are divided. A combination of sand and clay is a very retentive soil and not a good one to build a kennel on. All clay lands are both cold and retentive, and favourable towards the production of kennel lameness, especially if the drainage is at all faulty. This troublesome affection is one that is largely influenced by climatic conditions, cold winds and wet rendering the trouble more obvious than at other times. Pathologists are not at all settled as to the causative agent of rheumatism. Some authorities regard it as due to the presence of micro-organisms circulating in the blood, others that it is due to cold, and a third class as depending upon the existence of lactic acid in the blood. From a layman's point of view it does not matter much which of these theories is the correct one. It is a tolerably well-established fact that when hounds come in wet and hot after severe exertion, and then lie on a damp kennel floor, that such animals will, more especially if constitutionally predisposed, develop in a variable degree kennel lameness. One

of the worst features of the trouble is its tendency towards implicating the valves of the heart, the structure of which is closely allied to the same tissue that enters into the formation of joints, *i.e.*, fibrous tissue, and the organisms of rheumatism seem to have a selective affinity for this particular variety of tissue, though not exclusively. Lumbago is really nothing but rheumatism affecting the muscles of the loins, though very often in a severe form. Acute rheumatism is denoted by stiffness of a variable degree, but if a sharp attack the hound may be unable to move, howling with pain when it is even touched. As a rule kennel lameness attacks one of the fore limbs and the muscles of the breast, causing pain and stiffness, though in a lesser degree than acute rheumatism. A characteristic feature of this trouble is its tendency to change from one limb to another; in other words, it is metastatic. There are many obscure forms of lameness amongst hounds that are ascribed to rheumatism, correctly or incorrectly, but one attack of rheumatism predisposes to others, so that if one or more hounds in a kennel are troubled with this complaint it is of primary importance to attend to the condition of the kennel flooring, and also to keep the hounds warm and comfortable after they come in from work. Brisk hand-rubbing and a deep bed of straw will go a long way towards preventing the appearance of

this affection, prevention being much better than cure.

Treatment.—Local applications, although of utility, must rank as secondary to internal medication, the aim of which is to create a better condition of the blood, reduce the fever, and assist the excretory organs to expel the deleterious products circulating in the blood. One of the most useful drugs in the treatment of acute rheumatism is salicylate of soda, or else methyl salicylate in combination with colchicine; the methyl is given in doses of three drops, and the colchicine in doses of 1-250th of a grain, special globules being prepared for this purpose, the drugs named being extremely active ones. One or two globules can be given to each hound three times per day. A most useful mixture for the same purpose is as follows:

Salicylate of soda . . .	1 oz.
Bicarbonate of potash . . .	1 oz.
Colchicum wine . . .	$\frac{1}{2}$ oz.
Epsom salts . . .	2 drachms.
Chloroform water . . .	16 ozs.

Dose, one tablespoonful to be given to each hound every six hours, and the stiff muscles or joints rubbed with the following liniment:

Opodeldoc	10 ozs.
Laudanum	2 ozs.
Liniment of capsicums . . .	2 ozs.
Liniment of belladonna . . .	2 ozs.

Mix and rub well in twice a day. Supposing that it is an ordinary case of kennel lameness or chronic rheumatism (chest founder), the best plan is to freely rub or massage the parts with neatsfoot oil, or camphorated oil, giving internally the mixture as per prescription below:

Iodide of potash	1½ drachms.
Liquid extract of sacred bark	2 drachms.
Tincture of digitalis . . .	1 drachm.
Tincture of cinchona bark .	1 oz.
Water to make 8 ozs.	

Dose, one tablespoonful night and morning. In obstinate cases of kennel lameness good will sometimes result from the application of a liniment consisting of

7 parts of opodeldoc, and
1 part of compound tincture of iodine.

Rub the liniment in only once a day. A dose of purgative medicine is generally of service in rheumatism, either camomile or Epsom salts being the best for this purpose. The camomile can be given as a single dose, from five to eight grains, or one grain may be given daily until the desired result has been obtained. Implication of the heart—endocarditis—may exist in acute or chronic form. The chronic manifestation occasionally leads to the production of warty-like growths upon the valves, destroying their integrity though in a variable

degree. A heart affection of this nature is permanent and the animal is incapable of undergoing severe exertion. Concerning the question as to the hereditary nature of rheumatism nothing definite can be said, but the author believes that hereditary predisposition does occur, and that it is not advisable to breed from hounds troubled with this complaint, although this view must not be accepted as an untenable one.

CHAPTER XV

POISONS, AND WHAT TO DO IN CASES OF POISONING

HOUNDS, like all other dogs, are liable to suffer from the effects of various irritants of a chemical nature, either accidentally picked up about the streets or premises where poison has been laid down for the destruction of small vermin, as rats, etc., whereas in other cases the poisonous substance has been laid down with mischievous intent. Both foxes and Foxhounds are occasionally destroyed through some malevolent act shown towards the keeper, or to the kennel huntsman, about which there is generally a difficulty in bringing the miscreant to justice. The perpetrator of such acts has, obviously, some grievance that he wishes redressed, and seeks to do so at the expense of the keeper's charge. In the majority of cases of poisoning of this nature strychnine is the drug used, but the writer has known such substances as Cooper's sheep dipping to be employed, which principally consists of arsenic. If more stringent measures were adopted regarding the sale of this and other poisonous dips the better for the

safety of man and animals. In some cases several members of a pack of Foxhounds have been destroyed through picking up pieces of poisoned meat, probably laid down by a gamekeeper for the destruction of some enemy to game, and keepers are warned that this dangerous practice is deserving of the severest censure, in fact it is a criminal offence and ought to be punished accordingly.

In general the symptoms produced by such poisons as arsenic and antimony, etc., are vomiting, pain in the belly, prostration, thirst, dysentery, all of which persist for a variable period, and result in their destructive effects in proportion to the amount of poison consumed, the amount of food in the stomach, and the general condition of the animal's constitution, together with the nature of the poison. Both vomiting and dysentery are, obviously, intended to be salutary, and ought not to be checked unless the dog is too exhausted to withstand their depressing effects. All irritant chemicals produce gastroenteritis (inflammation of stomach and bowels), but the specific effects of a poison may be more manifest in the intestines than in the stomach, depending upon its degrees of solubility. Again, poison may be acute or chronic in accordance with the duration of the inception of the irritant. Thus, for instance, arsenical poisoning may become acute if the medicinal administration of arsenic is con-

tinued for several months without using suitable medicaments to eliminate it from the system.

Strychnine

This is one of the most deadly drugs known, and is only administered to dogs in the most infinitesimal doses, either as tincture of nux vomica or in solution of liquor strychnine. When given with malicious intent either the crystals will be used, or else the powder (nux vomica) from which the strychnine has been derived, as the latter is one of the two active principles obtained from the nux vomica plant. The symptoms of strychnine poisoning are very characteristic, the animal being affected with violent muscular spasms (convulsions) most painful to witness. These continue for a variable time, from a few minutes to several hours, but as a rule prove rapidly fatal, so that there is very little time for the adoption of any treatment, and even when such can be carried out is rarely successful.

What to do.—What may be termed the orthodox treatment in strychnine poisoning comprises the administration of an emetic in order to produce speedy emission, as the sooner the stomach empties its contents the better. Various drugs may be used for this purpose, but a domestic emetic comprises two or three teaspoonfuls of mustard and salt given in a half-pint of warm water. Twenty to forty

grains of sulphate of zinc or sulphate of copper, dissolved in two or three tablespoonfuls of warm water, are both safe and speedy emetics, but perhaps the best of all is a hypodermic injection of apomorphine, though this is really a matter of professional work. In every case of poisoning it would be better to have a professional opinion, provided that there is sufficient time. To subdue the spasms chloroform is of service, or twenty grains of chloral hydrate dissolved in a tablespoonful of water may be given every two or three hours. The correct antidote to strychnine is a decoction of tobacco, but this is not as useful as the remedies already referred to.

Arsenic and other Poisons

This is a constituent of some sheep dips, certain weed-killers, and various rat poisons, but commonly the latter contain either Phosphorus or Barium. White arsenic, or arsenious acid, is a heavy white powder, very insoluble in water, but the sulphides of arsenic are yellow. Arsenic is commonly prescribed in chronic skin diseases, usually in the form of a solution (Fowler's solution), the average dose being five drops two or three times a day. When given in excessive doses, and prescribed for a long period without intermittency, it accumulates in the system, and may provoke an acute attack of arsenical

poisoning, accompanied by peculiar symptoms implicating the digestive and nervous systems.

Antimony gives rise to much the same symptoms as arsenic, and, like the latter, usually proves fatal. Tartar emetic is a white powder, but a very deadly compound of antimony, and only prescribed in minute doses for dogs when it is needful to give an emetic. Very little can be done in poisoning by arsenic or antimony, but small doses of brandy may be used to overcome the prostration. A solution of iron is the correct antidote, but in suspected cases the best plan is to have professional advice, as in all other instances of poisoning, no matter of whatever nature.

*Some Methods Adopted for the Destruction of
Dogs*

Circumstances frequently render it expedient that some canine favourite should be as speedily and as mercifully as possible destroyed, and as a means to this end various methods are employed. One of the most expeditious comprises the injection into the thorax, by means of a hypodermic syringe, of twenty or thirty drops of Scheel's prussic acid. The syringe is first of all charged with the acid, and the needle of it pushed through the skin between the spaces of the ribs, and then through the flesh (intercostal muscles) into the chest, and the piston of the

syringe squeezed home; death is practically instantaneous. Destruction by chloroform is frequently resorted to, though it is not as speedy as the first-named procedure; methylated chloroform is the best for this purpose, and it usually requires from two to eight or ten drachms to destroy a hound. If chloroform is used the best plan is to put the dog in an air-tight box, then pour the chloroform upon a piece of cotton wool and keep the lid down until the breathing has entirely ceased. In the preliminary stage of destruction by chloroform the animal usually struggles a little, to overcome which a hypodermic injection of morphia is occasionally used previous to the administration of chloroform. Coal gas is sometimes used as a substitute, but a certain amount of care is necessary when destroying dogs with this explosive. The lethal chamber has been used extensively for the painless destruction of dogs and other small animals, and there is no doubt that this is a very easy method.

CHAPTER XVI

DISEASES AFFECTING THE LIVER

HOUNDS, like any other variety of dog, are not uncommonly affected with liver troubles, some of which are of an acute nature, others chronic in their course. It must be understood that the liver acts as a storehouse for the glycogen, or animal starch, and that this substance is mainly instrumental in supplying the heat of the body. It is contained in the minute cells of which the liver is mainly composed, and it is used up in accordance with the demands of the body. A liver complaint may exist in combination with some other affection, such as distemper, being popularly known in hound kennels under the title of "the yellows," to which a large proportion of young hounds succumb; in fact, the mortality from this trouble in the various hound kennels throughout Great Britain is a very considerable one. Another term for the same affection is "jaundice," although this symptom, *i.e.*, the jaundice, may be indicative of variable affections of the liver, both of an acute and chronic manifestation. In the generality of liver complaints there is one unmistakable sign presented for observation, which is a saffron color-

tion of the skin, mucous membranes, and white portion of the eye well known to hound-masters and kennel-men.

Jaundice

This term, as previously stated, is indicative of a liver affection, of which the jaundiced or yellow condition is the predominating feature, and when it appears amongst a kennel of young dogs it may, with very good reason, be regarded as existing in combination with distemper, or as a complication of this malady. In addition to the yellowness of the skin, etc., the excrescences from the urinary apparatus are stained with bile pigment; vomiting and diarrhoea are not uncommonly present, whilst if the dog has distemper there will be in addition the severe depression characteristic of that malady. The internal temperature usually ranges about 104 or 105 degrees, and remains near this point until an amendment occurs. The saffron discoloration of the skin, etc., is produced by the absorption of the bile into the blood, and its subsequent distribution throughout the various tissues of the body, upon which it exerts a detrimental influence, and the longer it exists in these abnormal situations the more serious the trouble becomes.

Management and Treatment.—Doubtless the high percentage of deaths arising from liver complications in connection with distemper might and ought to

be considerably reduced. Timely isolation should constitute a means towards this end. The walking of puppies is to a large extent a commendable practice, but the more remote the walkers are the better the chances of successful rearing, though unfortunately it often happens that too many hound puppies are placed in the same village or neighbourhood, which renders association more liable to occur, thus distributing such complaints as the one under consideration. It is rather remarkable that when the bilious form of distemper makes its appearance in a kennel that this particular type of the malady should be more or less prevalent throughout the locality.

In this affection the animals must be kept warm and in a dry kennel, as this materially contributes towards a successful issue. Begin treatment by giving five grains of grey powder in conjunction with ten grains of bicarbonate of soda night and morning, until about six doses have been given. Follow this treatment up with the powders according to the following prescription:

Powdered euonymin	.	.	6 grains.
Ammonium chloride	.	.	1 drachm.
Powdered red cinchona bark			2 drachms.

Mix and divide into one dozen powders, giving one night and morning in a tablespoonful of soda-water and milk. The best form of nourishment comprises

soda-water and milk, boiled fish, custard, along with the use of some stimulant, such as a teaspoonful of whisky or brandy every other hour. Local applications are useful, so that the region of the liver may have a mustard plaster applied, the mustard paste being washed off in about twenty minutes after application. If preferred, linseed meal and mustard poultices may be applied, only these are of no use unless they are kept tolerably hot and re-applied several times during the first hour or two.

Chronic Enlargement of the Liver

The liver may be permanently enlarged, such change being brought about by an increase of the delicate fibrous tissue intervening between the lobules of the liver, such increase being spoken of as cirrhosis, or induration of the liver, which, needless to say, is incurable, and not as a rule recognizable during life, unless the enlarged organ renders itself manifest by external manipulation. In some instances dropsy of the belly follows induration of the liver, due to obstruction of the circulation of the blood in the liver.

Diseases Affecting the Kidneys and Urinary Apparatus

Unfortunately for dogs these animals are not un-

commonly troubled with various urinary complaints, some of a temporary, others more or less of a permanent nature. The urinary organs comprise the right and left kidneys, the ureters or tubes conveying the fluid from the kidneys to the bladder; the bladder and the urethra serving to conduct the urine externally. The acid nature of the urine in carnivora predisposes these animals to the formation of phosphatic calculi in some part of the urinary apparatus, such as the kidneys, very commonly in the bladder. The calculus may form in one situation of the urinary track, but subsequently be transferred to some other portion of it. It seems almost needless to say that the formation of a stone or calculus in the kidney is more immediately dangerous than stone in the bladder, though not necessarily, so much depending upon circumstances. No matter what portion of the apparatus be involved, the existence of a calculus is attended with considerable danger, and whenever possible it is expedient to have professional skill.

Inflammation of the Bladder

The bladder may, and occasionally does become the seat of acute or chronic inflammation, brought on through variable causes. In some instances one or more calculi will have set up such irritation, but the degree of inflammation varies in extent and dura-

tion. If the surface of the calculus is rough the greater the liability towards abrasion in the lining of the bladder. Calculi vary in their size, shape and form; in exceptional instances the whole cavity of the bladder is occupied by a single calculus. Various irritant drugs, such as turpentine, cantharides, etc., are liable, when indiscriminately employed, to lead to irritation of the bladder.

Symptoms and Treatment.—In this affection there is an evident degree of pain in the posterior part of the body, and the urine is passed in drops, the act of urination being accompanied by pain, and sometimes by hæmorrhage, produced by abrasion of the mucous membrane, either of the bladder or urethra, possibly by gravel or stone. As the treatment is both operative and medicinal it follows that professional advice is indispensable, therefore the sooner such is obtained the better the chance of success. The food should consist of soda-water and milk, and custards.

Stricture

The urethra is occasionally the seat of stricture, usually the result of gravel or stone accumulations within it, or else through contraction produced by injury of its mucous lining. Cantharides, when given internally, is liable to lead to strangury or the passage of urine in drops. In order to over-

come the obstruction it is necessary to resort to the use of the catheter, which is easily passed, both in the dog and the bitch, the urethra being in the latter very short.

Rupture of the Bladder

This accident fortunately is of uncommon occurrence, and when it does occur it is needless to say proves fatal. External injury and over-extension of the viscus must be regarded as contributory causes.

Inflammation of the Kidneys

Inflammation of the kidneys is likely to assume either an acute or chronic form, and the author believes that kidney troubles are not very frequent amongst dogs, though it is quite possible that abnormal conditions of the kidneys are frequently overlooked, consequently the records in connection with such are very poor. Stone in the kidney is capable of setting up a chronic form of inflammation, gradually obliterating the true substance of the kidney, so that in due course this organ or organs are no longer capable of performing their functions satisfactorily. This is closely allied to what is popularly known as Bright's disease, although the causes may be different in man and the dog. The symptoms of chronic inflammation of the kidneys are very obscure, but vomiting, short and sharp pains refer-

able to the abdominal region (renal colic), together with the general signs of ill-health, and albumen in the urine, are the principal features present in kidney affections. In addition there may be pain across the loins, suppression of the urinary secretion, and in some instances a urinous odour from the skin, though the latter is exceptional.

Treatment.—The treatment comprises hot fomentations to the loins, and the administration of belladonna, hyoscyamus or opium internally, but cases of this nature certainly require skilled assistance.

CHAPTER XVII

DISEASES AND DISORDERS OF THE DIGESTIVE TRACT

The Teeth

DURING the cutting of the temporary teeth there is usually a good deal of irritation arising therefrom, but much more so when these are being replaced by the permanent ones, and when distemper occurs at this period the author is inclined to believe that this source of irritation acts as a predisposing cause in the development of convulsions. Entanglement of the teeth occasionally happens during replacement, or a tooth may become displaced through this cause. The temporary tooth should be removed in order to allow the permanent one to come into its place. Sound teeth constitute an essential part of the anatomy; irregularities and caries (decay), likewise the deposition of salts upon the teeth, are the principal troubles, and must be dealt with accordingly.

Foreign Bodies in the Throat

At the back part of the mouth the pharynx forms the entrance to the œsophagus or gullet, and it occasionally happens that a bone, etc., gets fixed

up in either of these regions. The animal is unable to swallow properly, but if the obstructing agent is at the back of the mouth it makes repeated attempts to dislodge the offending body. If located in the gullet it will possibly be felt through the skin, but of course there may be an obstruction in the gullet, in that portion of it which passes through the chest, which is inaccessible to external manipulation. A gag should be placed in the mouth and an effort made to dislodge the foreign body. It is a very good plan to lubricate the passage with a little oil before resorting to the use of the probang, though the latter must be employed if other means fail.

Stricture and Dilatation of the Gullet

These abnormal conditions may exist independently or be co-existent, the dilatation following upon the stricture. Injury to the mucous membrane lining the gullet, and subsequent contraction of the scar tissue, is liable to lead to stricture, which is a most serious condition as the food is cut off from the stomach. Cases of this nature demand the exercise of professional skill, so that if suspected no delay should occur in obtaining such. In exceptional instances obstruction of the gullet arises from the pressure of some morbid growth adjacent to the outer surface of the tube.

Vomition

All dogs have the power of vomiting or ejecting the contents of the stomach at will, consequently, whenever nauseating substances pass into the stomach, this animal usually expels them at once. The readiness with which vomition is induced constitutes, in a measure, some safeguard against the absorption of irritant poisons by the stomach, so that it is not always advisable to check vomition, as such may be the most efficient means of clearing the stomach of some noxious substance that might, if the vomition were arrested, lead to the animal's death. The ready response of the dog to an emetic renders it easy to clear the stomach almost immediately, and in the majority of cases of poisoning it is expedient to do so. From half to two ounces of ipecacuanha wine is a simple but efficacious emetic. Antimonial wine can be used as a substitute. From the foregoing remarks it will be gleaned that the vomiting is often a salutary process, and that it is only when it becomes excessive that it ought to be checked. When prolonged it is exhausting, troublesome vomition being a common symptom in distemper; but even in that disease a good deal of care is necessary, as diarrhoea often follows when remedies have been used to check the vomiting. When vomiting is troublesome all water must be

withheld, and the more rest given to the stomach the better; no solid food ought to be allowed, but a little iced milk, or milk and soda-water, will usually prove beneficial. When the stomach of a hound is in an irritable condition soda-water should be substituted for the ordinary water, and if a teaspoonful of invalid bovril be added to the soda-water the stimulant will help to nourish the animal until such time as the stomach regains its normal tone. From five to thirty grains of bismuth—either the carbonate or the nitrate—is one of the most useful remedies that can be employed for arresting vomiting and allaying an irritable condition of the stomach. This can be given either as a powder or along with a tablespoonful of soda-water, or even with milk and soda-water.

Gastric Catarrh

An irritable condition of the stomach arises during the course of various maladies, and ranges from the most trifling irritation of the mucous membrane to one of violent inflammation, frequently implicating the mucous membrane, the muscular coat and its outer serous covering. The condition last referred to is occasionally observed in cases of poisoning, more especially when the dose has been a large one. Strictly speaking, the term “gastric catarrh” ought to be limited to a mild inflammatory condition of

the mucous lining. The leading symptoms are thirst, peevishness, eructations, vomiting, capricious appetite, and general unthriftiness. Worms are a frequent cause of this trouble, and much the same remark applies to food unsuitable in quantity or quality, irregular feeding, or feeding or watering when the body is overheated, as happens after severe exertion.

Treatment.—Try and ascertain the cause. It is generally a good plan to give a dose of worm medicine. Soft food ought to be allowed, more especially boiled rice, boiled fish, or soaked hound meal; bulky food must be avoided, so must the use of bones. To bring about a healthier condition of the stomach extract of malt in dessertspoonful doses night and morning will prove beneficial, more especially if supplemented with the following mixture:

Pepsin	. . . . .	32 grains.
Dilute hydrochloric acid	. . . . .	$\frac{1}{2}$ oz.
Carbonate of bismuth	. . . . .	3 drachms.
Bicarbonate of soda	. . . . .	3 drachms.
Bromide of potash	. . . . .	2 drachms.
Rectified spirits of wine	. . . . .	2 ozs.

Chloroform water added to make the mixture
measure 12 ozs.

The dose for an adult hound is one tablespoonful night and morning immediately before feeding. In some instances a purgative will prove beneficial, but

s

if worm medicine has been used there is no necessity for this. Castor oil, buckthorn, etc., in cases of this nature, do more harm than good.

Hæmorrhage from the Stomach

Blood may be ejected from the stomach either intermingled with the food, etc., during vomition, or it may be expelled in the form of clots, depending upon the causes giving rise to its production. Ulceration of the mucous membrane, or the rupture of a small vessel in the wall of the stomach, may lead to a trouble of this nature. Ice packs to the belly, and iced milk, etc., is the correct treatment to adopt.

Enteritis, or Inflammation of the Bowels

Inflammation of the bowels is not of uncommon occurrence, and when it does occur it is, practically speaking, a fatal disease. The inflammatory changes may be confined to the mucous membrane, or extend, though in a variable degree, throughout the thickness of the wall of the gut. The area involved may be small, or extend over a length of the intestine either large or small, but the author believes that inflammatory changes are most frequently met with in the small intestines, especially in that portion immediately adjacent to the stomach, *i.e.*, the duodenum, in which absorption is particularly active. The causes of enteric inflammation are almost in-

numerable, but a very common one in young hound puppies arises through the presence of numerous round worms, as *Ascaris marginata*. These parasites may be so plentiful in the bowel even a few days after birth as to completely occlude the canal and set up acute enteritis. Unfortunately for dogs these are not the only cause of the trouble under consideration, a fairly common cause being some form of irritant poison, such as arsenic, antimony, phosphor paste, strychnine, etc., but superadded to the enteritis there is usually gastritis or inflammation of the stomach. (See "Poisons.") A lesion of the bowels, especially in puppies, is one known as intussusception or the telescoping of one part of the bowel into another, which leads to inflammation and subsequent mortification of the invaginated portion of the bowel. Twist of the bowel is another cause of enteritis, whilst obstruction produced in variable ways may lead to a similar result. Very little can be done under these circumstances; in fact it is questionable whether any treatment is of real utility in a disease of this kind. The leading symptoms are pain in the belly, vomiting, thirst, prostration, injection of the visible mucous membranes, together with other signs of severe illness. As a general remedial agent ordinary chlorodyne, given every three hours, in doses of twenty or thirty drops, combined with a tablespoonful of water, proves service-

able. When inflammation of the bowels arises from external injury, such as a wound in the belly, it is generally associated with peritonitis. Hot fomentations for the belly, or poultices, will help to subdue the pain.

Diarrhœa and Dysentery

The former is symptomatic of derangement of the stomach and bowels, whereas the latter is frequently indicative of disease of the mucous lining of the lower end of the bowel, and indicated by blood-stained evacuations so commonly observed in the low form of distemper. Distemperic dysentery is more liable to prevail where the sanitary conditions of the kennel are not good, and there is nothing tends to exhaust the body quicker than this trouble. It may be the best method that Nature has of getting rid of the noxious material from the system, but it is a very exhausting process and demands careful treatment.

Diarrhœa arises through sudden changes of food, from the presence of worms, from the prolonged use of soft food, as the result of feeding on greaves and dried meat in other forms, exposure to cold, and from the abuse of purgative medicine. As the causes are so variable it seems almost unnecessary to remark that the treatment must be just as varied, so that it is essential to try and ascertain what has produced the diarrhœa. To resort to the use of

astringent mixtures is not judicious treatment, unless the cause is clearly defined and likely to be benefited by the use of such astringent remedies. In the majority of instances a mild dose of castor oil, combined with thirty drops of paregoric, or the same quantity of chlorodyne or of laudanum, will prove beneficial. Sometimes antacids are indicated; this being the case where the diarrhœa arises through hyper-acidity of the intestinal secretion. Fifteen grains of grey powder, given daily for two or three days, will do very well under these circumstances. If due to cold, five drops of Rubini's essence of camphor, or twenty drops of paregoric, given in a tablespoonful of cold arrowroot gruel three times per day, usually does good. For dysentery, ipecacuanha is a very good remedy; it should be given in twenty-five grain doses, combined with ten grains of bicarbonate of soda, and half an ounce of syrup of orange. Repeat in eight hours, and for two or three days afterwards give the same drug in eight-grain doses. In both diarrhœa and dysentery no liquid must be allowed until such time as recovery is complete; a little iced water, or small doses of Wyeth's beef juice, may be allowed for nourishment. If vomiting is troublesome, give bismuth, twenty grains, three times daily in a tablespoonful of soda-water.

CHAPTER XVIII

SOME DISEASES OF THE NERVOUS SYSTEM

Convulsions

CONVULSIONS, or “fits,” as they are popularly termed, are rather common amongst puppies, and in the majority of instances arise through the presence of worms in the alimentary canal, more especially round worms (*Ascaris marginata*), which parasites infest about 70 per cent. of puppies. These round worms infest both the stomach and the bowels and set up a great deal of irritation, and convulsions result from this reflected source of irritation. Sometimes puppies only a few days old will be affected in the manner named; if so it is a difficult matter to treat them successfully against these pests. The best remedy is santonin and castor oil, and the dose for puppies ranges from half to five grains of santonin. If the puppies are a month to six weeks old give two grains of santonin combined with five grains of areca nut, the whole to be mixed with one teaspoonful of castor oil. This should be administered after the puppies have been kept without food for a few hours.

For the convulsions the following mixture may be used:

Bromide of ammonia	.	.	40 grains.
Bromide of potash	.	.	1 drachm.
Syrup of lemon	.	.	1 oz.
Peppermint water to make 6 ozs.			

A dessertspoonful of the foregoing mixture may be given every six hours, and continued until the convulsions have passed away. If the puppies have been weaned they must be fed upon some very soft food, such as boiled rice and milk, boiled fish and milk, or Spratt's malted food.

Epilepsy

Epileptic fits are frequently met with in hounds, commonly arising through excitement, exposure to severe heat, also as the result of external injury to the cranial bones, and from irritation within the alimentary canal. Although a difficult matter to lay down any distinctive features between epileptic seizures and the convulsions previously alluded to, this much can be said, viz., that the former are most frequently met with in adult dogs, and the latter are specially prone to attack the young. During distemper, convulsions are common, and by many authorities such fits are regarded as the true form of epilepsy; their appearance is, however, in the writer's opinion, largely determined by some form

of intestinal irritation. Epileptic seizures are denoted by sudden loss of consciousness, falling to the ground, champing of the jaws, foaming at the mouth, and other minor signs. The period of unconsciousness may be momentary, may persist for hours, and in exceptional instances for several days. In other cases, instead of loss of consciousness delirious symptoms appear and the dog rushes wildly about, barking and snapping at objects, leading the owner to suppose that the animal is going mad—which for the time being it is; but such madness is totally different from that terrible disease known as “rabies,” which, fortunately for both dog and man, has been stamped out in Great Britain. When a dog is affected with this delirious form of epilepsy it ought to be immediately placed under restraint, otherwise it is liable to injure itself, and the excitement leads to exhaustion. Moreover, if the fit occurs in the street it leads the stupid and the ignorant to regard the dog as affected with rabies, and suggestions are offered, and occasionally put into execution, that it is advisable to destroy the dog at once. It would be better if those who made suggestions of this kind were compelled to suffer in a corresponding manner, and perhaps one would then hear less of mad dogs, at anyrate in the British Isles.

In the treatment of epilepsy the dog must be kept absolutely quiet, then given a dose of purgative

medicine, followed by a course of bromides. Twenty grains of bromide of ammonia can be given to an adult hound every six hours, or even a little oftener, if the fits are severe or recurrent. Bromide of strontium, of soda, or of potash, can be substituted for the ammonia if necessary, and given in the same doses, mixed with a tablespoonful of water.

Parturient Eclampsia

In this trouble the affection is characterized by epileptiform seizures and confined to the parturient bitch, in other words, to the dam, whilst suckling her puppies. Its appearance seems to be mainly dependent upon anæmia of the brain, due to exhaustion of the economy by the excessive demand made upon the mother by the offspring. The puppies should be weaned as soon as possible, or, what is still better, get a foster mother; the drain upon the system must be reduced. A dose of laxative medicine must be given, all excitement avoided, and the bitch should have twenty grains of bromide of potash night and morning in a little water. Feed on soft food.

Paralysis

A paralytic condition of the body, or any part of the body, is capable of arising through a multiplicity of causes, and the paralytic condition is but sympto-

matic of either disease or injury in accordance with the part implicated. As a rule paralysis is due to defective musculo-nerve power. Take, for instance, the eye, in the diseased condition known as amaurosis, in which the optic nerve fails to respond to external stimuli, yet the organ appears to be healthy, though incapable of performing its functions. A fractured limb for the time being is paralytic, and much the same remark applies to a dislocated limb. Paralysis of the tongue, usually in a partial form, is not uncommon in the dog, whilst paralysis of the lower jaw occasionally occurs independently of that obscure but deadly malady known as "dumb rabies." Paralysis may be either local, *i.e.*, confined to one part, or general, *i.e.*, distributed more or less over the body. In hounds paralysis of the hind quarters is tolerably common, especially during, or subsequent to, an attack of distemper. A general paralytic condition of the body is by no means rare and is often the result of reflected irritation, arising through a torpid condition of the bowels, and usually disappears immediately after an enema has been given. Most cases of paralysis are benefited by a course of massage, and in fact for the so-called "distemper spine" there is nothing better than good massage and a course of hypophosphates in conjunction with cod-liver oil. In other cases paralysis must be treated in accordance with the cause.

Distemper

Foremost amongst all canine scourges distemper stands pre-eminent, and it is as active in its varied manifestations in the present day as it was nearly two hundred years ago. The hound-master dreads this scourge as much as any man whose interests are centred in dogs, because he knows the severity of its ravages, and the losses, to say nothing of the inconvenience, this trouble entails in connection with his hunting establishment. In trencher-fed packs obviously distemper must create less mortality than in packs congregated together, and there is no doubt that the practice of walking puppies should constitute one of the best safeguards against severe losses, and which it would do if sufficient discrimination were exercised in the distribution of the pups to the walkers. It is a fatal mistake to distribute puppies amongst walkers living as it were "cheek by jowl" with one another, and the author has been surprised to note this system adopted where a different state of affairs might have been expected to exist. Every master of hounds and kennel huntsman knows what an extremely infectious disease distemper is, and is also equally well aware how members of a community in a village associate with one another—sometimes too much so—and compare hound with hound, whilst the hounds them-

selves belonging to adjacent walkers are not slow to take advantage of the association thus afforded. This statement clearly shows how distemper may be spread from its point of origin to other and distant centres. The wide distribution and isolation of trencher-fed hounds constitutes the most rational system that can be followed, and the author strongly recommends its adoption by all M.F.H.'s. Another precautionary measure worthy of note is, never send a puppy on to premises where a previous hound has had distemper, as infective material is capable of hanging about such premises for a variable, though we will not say indefinite, period. If timely precaution is adopted the losses amongst fox and other hounds can be greatly diminished. First of all, owners of hounds may like to know what distemper really is, as it is surprising the remarkable ignorance that prevails amongst many people as to the nature of this trouble. Although definitions are seldom much use it may help the reader if a concise definition be given, which is that:

Distemper is an infective febrile disease, insidious in its onset, having an incubative period of not more than eight days : variable in its manifestations, duration, severity of attack and termination. It is characterized by dullness, loss of appetite, a discharge from the eyes and nose, rise of internal temperature, a hard cough, together with a tendency towards lung, bowel,

liver, brain, or spinal implication, and by the appearance of an exanthematous or cutaneous eruption, more especially upon the skin covering the belly, inside the thighs, or distributed more or less over the whole skin, and subsequently by desquamation, or shedding of scurf.

What may be regarded as the classical features of this trouble may briefly be summarized as follows:

(a) Its infective nature. The writer does not for a moment suppose that any proprietor of hounds will dissent from the view that distemper is an exceedingly infective complaint; the term infection is more serviceable than contagion, as it satisfies all methods of transmission of the malady, whereas contagion has a very limited meaning. A question that necessarily arises in the mind of a thoughtful observer, and to be a thoughtful observer one must also be a speculative thinker, is that relating to the channels of transmission and what the material is that is transmitted. First of all it is tolerably certain that the living infected hound constitutes a much more active agent in disseminating the malady than the cadaver or dead body, though the latter cannot be regarded as a medium incapable of transferring the complaint, *i.e.*, within a reasonable period.

Direct transference takes place, or is liable to occur, when an infected hound is brought into contact with a previously healthy subject, provided that the animal has not had a prior attack of the malady, it being a well-ascertained fact that youth constitutes a predisposing factor in determining an attack of distemper. The nasal discharge does, in the author's opinion, form one of the most active agencies for transmission, either by ingestion of it or through implantation of it upon

a mucous surface in connection with the respiratory tract, so that if a healthy subject suffers inoculation at the nose, or at the mucous membrane of the eye, the disease will be reproduced. Indirect transference may occur in a similar manner, hence one is forced to conclude—with abundance of proof that such does occur—that the clothing of men and animals, the hands, benches, feeding utensils, water-troughs, as well as various species of rodents and birds, all act as carriers of the active contagion. Foxes, badgers, ferrets, pole-cats, weasels, stoats, along with other members of the *Mustelidæ*, commonly suffer from distemper.

The author can cite instances relating to kennels that have never had distemper amongst their inmates, the disease being unknown to the gamekeeper in charge possibly for thirty years, when the accidental introduction of a distempered fox or ferret has brought the malady on to the premises, resulting in the complete destruction of the whole stud. Experienced and observant gamekeepers have noted that the freedom during certain years from such vermin as stoats, weasels and squirrels has been due to a severe epidemic of distemper amongst these animals. Another question of considerable importance presents itself for solution, which is—Is the virus of this malady both “fixed” and “volatile”? If the latter, then there are reasonable grounds for assuming that the trouble can be perpetuated through the medium of the atmosphere—in other words, the germs of distemper can be inhaled. This atmospherical transference is accepted by some authorities, but not by all. In any case it is advisable to regard such transference as possible. The water-troughs which are placed at shop-doors by sympathetic but foolish people do, in the writer’s opinion, act as media for the transmission

of distemper. The prevalence of distemper in a kennel is often succeeded by the appearance of the malady in other kennels, either in the same or different localities, very often due to some form of intercommunication between one kennel and another. When confined to a particular locality it is spoken of as endemic or enzoötic, whereas its distribution over a larger area, it may be in the same, or other, counties, is then epidemic, panzoötic, or epizöotic. It is correct to regard the disease as constantly existing in the latter form, though ready at any time, under favourable influences, to be transformed into an actively-prevailing endemical trouble. Climatic and geological formations have an indirect bearing upon the severity or otherwise of distemper. For instance, if the weather is particularly moist, the wind cold, say in the east or north-east, lung trouble is more liable to make its appearance, whereas if the ground on which the kennel stands is of a retentive nature, or the kennel situated where there is much moisture present, rheumatic complications, or those of a dysenteric nature, may possibly predominate. Both high and low states of barometrical pressure do, as indicated, exercise an important bearing upon this pathological condition.

(b) The presence of catarrhal signs. In the majority of instances the catarrhal signs are obviously present, and persist for a time after the malady has subsided, though such discharges are still capable of perpetuating the complaint.

(c) That pyrexia or fever is a constant feature, even during the incubative phase; in fact, the clinical thermometer does, in the author's opinion, constitute one of the most valuable instruments for ascertaining not only the initial stages but also for marking the patient's

progress throughout the complaint. Taking the normal standard at 101° F., we very often find, prior to the onset of well-marked clinical phenomena, that the internal temperature registers at 104° or 105° , to be followed in a short time by symptoms universally regarded as diagnostic of this affection. To state distemper exists without any rise of temperature or catarrhal signs, is to my mind contradictory to well-ascertained facts.

(d) That the organisms, no matter to what class they belong, have a decided preference for attacking the mucous membranes, both of the respiratory and digestive tracts; moreover, that the predominating features are largely determined by the condition of such at the moment of invasion by the specific organisms.

(e) That there is a tendency for a particular type of the malady, such as the lung form, the yellow or bilious form, or the cerebral form, to prevail more markedly, though not altogether to the exclusion of other manifestations of the same affection.

(f) That distemper belongs to a class of diseases technically known as specific exanthemata, is evidenced by the fact that a cutaneous eruption commonly makes its appearance, though it may be so slight as to escape observation. Some writers on canine pathology look upon such eruption as pathognomic of distemper, and suggest critical inspection of the animal to determine the existence of the rash. The author does not attach much importance to such statements, and any practical veterinarian would ridicule the idea of adopting this method, as one suggestive of much practical utility, especially during the admission of dogs into a show. A well-marked pustule eruption is of value, but not one so trifling as to require minute search for.

(g) In addition to the foregoing classical features

prostration and rapid wasting of muscular tissue are distinctive features, although not invariably present, more especially if the attack occurs when the dog is fairly well matured.

In continuance of the description of distemper, the development of such clinical phenomena as a spinal weakness (distemper spine), chorea, paralysis, etc., no absolute rule can be laid down as to the precise period at which their onset may occur, but, as a rule, the spinal weakness and chorea usually make their appearance on the approach of convalescence, that is, if such appear at all. Chorea is denoted by an involuntary twitching to a variable degree of one or more muscles, more particularly in the region of the head, ears and limbs, and its establishment is, in nine cases out of ten, permanent. Spinal weakness, though of a very persistent nature, can usually be abolished by freely massaging the patient and the prolonged use of cod liver oil and hypophosphates or some other allied compound. Distemper being a specific febrile disease, it must run a definite course, and there is no medicine can cut short such course; by careful nursing and good management much can be done towards directing the patient to a favourable issue, whilst the timely isolation may do more towards preventing than by attempting to cure it. Up to the present time no method has been devised for protecting hounds against this trouble; vaccina-

tion, inoculation, and all other et ceteras, either of British or Continental origin, are absolutely useless.

The author does not consider it necessary to recapitulate the various symptoms or complications attending this malady, as these have already been dealt with under the headings of bronchitis, pleurisy and pneumonia, jaundice or yellows, convulsions, vomiting, diarrhoea and dysentery, to which the reader must turn for the requisite information. The catarrhal signs are characterized by a discharge from the nose and eyes, shivering, cough, together with lassitude, loss of appetite, and other indications of greater or lesser importance, but all sufficient to warrant, when such make their appearance in a young dog, immediate segregation. With reference to immunity, it is a well-established fact that one attack of a specific exanthematous disease confers a degree of immunity, though such must not be accepted as absolute, against another or succeeding attacks of the same trouble. The benign nature of distemper is as well known as its malignancy at other times; therefore prognosis is always speculative. A simple attack sometimes develops into one of the most malignant nature, and carries off a patient in a remarkably rapid manner. Thorough disinfection constitutes an important part in the management of this complaint, and it is strongly recommended

that areal disinfection should be carried out, preferably by means of sulphur and formalin candles, both of which substances are destructive to the virus of this disease.

Chorea or St Vitus's Dance

This is a nervo-muscular trouble, extremely common as a sequel to distemper, often developing during the convalescent stage. It is an affliction that varies greatly in its severity, some dogs having the complaint so slight that the owner may not be aware of its existence. On the other hand it is of so great severity as to necessitate the destruction of the hound. No true pathological knowledge has been ascertained up to the present time. Chorea is characterized by involuntary muscular twitchings, especially about the face and the limbs. These movements are sometimes in abeyance during sleep. In slight cases recovery sometimes occurs, but medicinal treatment does very little good.

CHAPTER XIX

ENTOZÖA (WORMS)

HOUNDS are no exception to the rule when it comes to the invasion of the alimentary canal by worms, which are divisible into two principal classes, *i.e.*, *Næmatodes* or round-worms, and *Cestodes* or tape-worms, both of which are exceedingly common, inhabiting either the stomach or the intestines, or both. There is an uncommon form of parasite which takes up its abode in the wall of the stomach—being a true blood-sucking parasite. This is called *Spiroptera sanguinonata*, and it is a rare cause of hæmorrhage from the stomach. A fluke-shaped worm occasionally invades the nasal passage or sinuses in connection therewith. (See “Catarrh in Respiratory Diseases.”) In some foreign countries a thread-worm takes up its habitat in the chambers of the heart; it is spoken of as the cruel thread-worm or *Filaria immitis*. The commonest round-worm is *Ascaris marginata*, also referred to under the heading of “Gastric Catarrh and Inflammation of the Bowels” (which see). The commonest tape-worm is *Tænia cucumerina*, and the larval or dormant phases of this tape-worm takes up its abode in the

flea and the dog louse, hence the necessity for keeping a hound's coat as free as possible from these undesirable visitors, otherwise their host acts, though unwittingly, as a medium for the perpetuation of the worms named. Another common tape-worm is the serrated worm (*Tænia serrata*), which attains many feet in length. The larval form of this worm resides in hares and rabbits, hence the objection to allowing sporting dogs to consume the entrails of these animals. *Tænia marginata* is another tape-worm infesting the dog; the larval stage of this resides in the sheep and pig. There is a small tape-worm, not more than one-third of an inch in length, called *Tænia echinococcus*; it is an uncommon parasite in English dogs; the larval forms of it take up their abode in the liver, lungs, brain, etc., of horses, cattle, sheep, pigs, etc., and such may lead to the host's death. Take, for instance, the hydatid cyst in juxtaposition to the brain; its presence here will cause most serious symptoms, such as a want of co-ordination, etc. Echinococcus disease affects man as well as animals, and this is one reason why it is such a bad plan to fondle dogs, as the eggs of *Tænia echinococcus* might be transferred from a dog to a human being through fondling. Hounds are particularly liable to be infected with the serrated tape-worm already alluded to, whilst about 70 per cent. of dogs in general are infested with *Tænia*

cucumerina. What is known as the gid tape-worm (*Tænia cænurus*), has its hydatid or resting-home in the sheep, and in one situation, viz., upon the brain. When sheep and lambs are troubled the affection is spoken of as sturdy, or gid, also as sturn sickness, and a variety of local appellations. Blindness and a want of control over the movements are signs well known to flock-masters. It is unfortunate that these ruminants should be troubled in this manner, but much can be done by keeping dogs off pastures and by the periodical dosing, say three or four times a year, for worms. There are numerous other entozöa infesting the dog, but the foregoing are the principal ones. All hounds, both adults and puppies, should be dosed at least three times a year for worms, and all worm medicines give the best results when administered to a dog that has been fasted for a time, ranging from six to twenty-four hours. Worm medicines that kill the worms are known as vermicides; those that expel as vermifuges; whilst a remedy that is useful for tape-worms only is known as tænifuge. All purgatives are more or less vermifuges, but a drug that merely expels once is not to be relied upon as an efficient remedy for such purposes. All brood bitches require to be kept particularly free from internal parasites, especially from *Ascarides* or round-worms. There are an extraordinary number of worm medicines on the market,

many of which are quite useless and ought not to be used. An anti-worm remedy that combines vermicide and purgative properties is the most useful, but at the same time its value is materially enhanced if it has the power of being equally destructive to both tape-worms and round-worms. Santonin is regarded as the remedy *par excellence* for round-worms, but it requires to be given in combination with a purgative, for which purpose castor oil is a very suitable medium. Eight grains of santonin, in conjunction with a couple of ounces of castor oil, is a suitable dose for a full-grown hound, whilst for hound puppies five grains of santonin and one ounce of castor oil, repeated at intervals of ten days, does very well. Five grains of thymol, dissolved in a dessertspoonful of spirit and given with an ounce of castor oil, can be used for the same purpose. Areca nut, kamala, quassia, turpentine, liquor extract of male fern, camomile, etc. etc., are the remedies commonly used for the treatment of tape-worms. The following powders will be found suitable for hounds:

Areca nut (in powder)	2 ozs.
Kamala	1 oz.
Powdered cinchona bark	2 drachms.
Santonin	2 drachms.
Powdered liquorice	$\frac{1}{2}$ oz.

Mix thoroughly, and then divide into 15 powders. Give one powder to each full-grown hound, either

made into a bolus with treacle or honey, or else given in liquor form, for which purpose there is nothing more suitable than a dessertspoonful of treacle dissolved in two tablespoonfuls of warm water. A sufficient quantity of treacle and water can be put in a wide-mouthed bottle, the whole of the powder then added, thoroughly shaken up, and divided into 15 doses. Instead of the treacle a tablespoonful of linseed oil can be used for each dose, which will act as a laxative, thus rendering it unnecessary to administer any further purgative medicine. It is a good plan to dose all the hounds at the same time, taking particular care to thoroughly disinfect the kennel flooring afterwards. In whelp bitches ought not to have worm medicine during the later phases of gestation, but, as previously stated, they should be cleared of these pests before the breeding season. When hounds are affected with worms the appetite is capricious, the coat staring, the bowels irregular; there is occasional vomiting, but above all a want of constitutional vigour, combined with the general signs of unthriftiness.

CHAPTER XX

FRACTURES AND DISLOCATIONS

Fractures

HOUNDS, like every other variety of dog, not uncommonly suffer from various injuries to their bones and joints, more especially fractures of the long bones of the limbs. Broken bones in puppies unite more readily than in adult dogs, and in the middle-aged quicker than in old dogs. It may be accepted as a practical truth that nearly every injury, the result of direct or indirect force applied to the bones of the vertebral or spinal column, is either at once fatal or subsequently proves so, so that the deduction is when a hound receives a severe spinal injury the most economical method is to have it as speedily as possible put out of existence. One of the commonest methods of injury occurs through the animal being run over either with a vehicle or motor-car, but as a rule, in the latter case, death is instantaneous. Spinal injuries are often difficult to determine, and if there is any doubt it is better to give the animal

the benefit of this, because a few days' treatment will usually enable one to ascertain whether the injury is curable or otherwise. A fracture may be transverse, oblique or longitudinal, the oblique fracture being, as a rule, the one most amenable to treatment. It is usual to speak of such as a simple fracture when the bone is merely broken into two parts, which can happen in any of the forms of fractures alluded to. If the bone is broken into a number of fragments it is a comminuted fracture, whereas a compound fracture is one in which there is a wound in the skin and flesh plus the fracture. The worst injury is the compound comminuted fracture, and this requires very skilful treatment. It takes from three to six weeks for the union of a bone, but it is always advisable to leave the splints, etc., in position for two or three weeks longer, as their too early removal sometimes results in permanent lameness. Needless to say, fracture through a joint is a much more serious matter, and such injury is very liable to end in a permanently stiff joint. The causes of fracture are variable. It is sometimes due to violent muscular contraction, to direct or indirect concussion, to disease of the bone; but by far the commonest cause is direct injury. The signs of fracture are as variable as the causes, but in theory it is customary to speak of increased heat, pain, crepitus, swelling, sudden lameness and shortening of

the limb as diagnostic, any of which signs in practice may be absent. There may be no swelling, no shortening of the limb and no crepitus, yet a bone may be fractured, and this is where the layman is baffled in his diagnosis. As previously stated, fractures of the limbs occur frequently in hounds, especially of the forearm and pastern bones; the arm or shoulder blade is occasionally fractured, and if there is displacement there will be no difficulty in detecting crepitus. But displacement does not always occur at the time of injury; if not, the fracture is spoken of as deferred. Fractures of the pelvis, *i.e.*, the girdle uniting the hind limbs to the spinal column, is liable to happen when a dog is run over, though it is not necessarily an incurable injury, as the writer has proved that certain forms of pelvis fracture are curable by keeping the animal in as small a space as possible for a period of about three months, so as to ensure as much restriction from movement as possible. Fracture of the thigh bones must be looked upon as a serious injury and only capable of treatment under professional guidance. If swelling accompanies the injury it is advisable to foment the part with hot water; the broken ends should then be adjusted (that is after the swelling has disappeared) and maintained in position either by means of a plaster of Paris or starch bandage; if neither of these substances are at hand, white of

egg or gum may be used instead. As a rule it is advisable to put on a dry bandage first and then the supporting bandage. Plaster of Paris bandages are made by taking an ordinary bandage, smearing the whole of it with dry plaster of Paris, afterwards rolling it up tightly. When required for use, soak it for a minute or two in water, apply, and adjust to the limb.

Dislocations

A dislocated joint is one in which the bones entering into the formation of the joint are temporarily displaced from the normal position. Accidents of this nature are not of very frequent occurrence amongst dogs, and when a dislocation does occur it is either the shoulder, elbow or stifle joint that is the seat of such injury, but it must be understood that any joint may be dislocated; perhaps the commonest of all is dislocation of the elbow joint, in which the ulna slips out of its normal position, but is capable of easy replacement, being nevertheless of a recurrent nature. When a dislocation is allowed to remain in existence for weeks, or even months, the ligamentous structures of the joint, etc., become stretched, and there is a tendency for the dislocation to become permanent. To reduce a dislocation means the replacement of the bones

in their proper position, and subsequently retain them in such position, either by means of an adhesive bandage, a plaster of Paris bandage, or some other surgical means, until such time as permanent restoration is effected.

CHAPTER XXI

WOUNDS AND VARIOUS OTHER INJURIES

HOUNDS, like other dogs, are liable to wounds in various parts of the body, and such injuries may be either superficial or deep, simple or compound. In a simple wound the injuries are confined to the skin and subjacent tissues, whereas in a compound wound other structures, such as the lungs, bowels, etc., may be involved. A clean-cut wound is spoken of as "incised"; when the edges are jagged, as "lacerated"; "punctured" when it is in the nature of a "stab"; "contused" when there is considerable bruising of the surrounding tissues. Punctured wounds are, as a rule, the most serious and demand skilful treatment. Both lacerations and punctured wounds frequently occur during combat of one hound with another, and critical inspection is needful in such cases, because the skin wounds may be apparently trifling whilst deep punctures and lacerations possibly exist in the flesh. The author's experience is that injuries of this nature frequently prove fatal, death occurring through mortification; early treatment in such injuries is necessary, therefore professional aid should be obtained as soon as possible. The size of a wound cannot be accepted as evidence

of its harmless nature, knowing that the most trifling wounds are occasionally followed by death. Punctured wounds should be syringed out with some antiseptic solution night and morning, but to probe a wound is not judicious treatment. The situation of a wound has an important bearing upon the ultimate results; for instance, a penetrating wound of the chest or belly, or of the cranial cavity, is very liable to set up inflammation of the lungs, bowels or brain, and a septic inflammation of this kind generally leads to death. Wounds about the feet, eyelids and ears are very common and must be treated in accordance with their severity. If the feet are cut, first of all cleanse the wound and dress with boracic acid ointment spread on lint, or with carbolic oil, eucalyptus liniment, or some other antiseptic; put a piece of linen over the foot, pad with tow or cotton wool, and maintain the dressing in position by means of a bandage. Rest and cleanliness are two essentials in the management of wounds about the feet. For superficial wounds, Friar's balsam, or styptic collodion painted on, are suitable applications. Wounds in the region of the eyelids, especially if involving the cartilage of the lids, are necessarily associated with ophthalmia, and this in its turn will lead to opacity of the cornea or partial blindness. It is customary for veterinary surgeons to either sew or pin up wounds in this region,

and treat ophthalmia according to the principles laid down for a trouble of this character. (*See "Diseases of the Eye."*) The rounding of Foxhound ears is regarded by the majority of masters of hounds as a preventive against the infliction of injury to the flap of the ear, though this view is not entertained by all authorities. Wounds of the flap of the ear are generally very troublesome and show little disposition to heal, so that it is necessary to bestow very careful treatment upon injuries of this kind immediately they are inflicted, otherwise the so-called external canker of the ear is liable to result. In this condition the edges of the wound thicken and prevent union of the torn edges; the best plan is to draw the cut edges together with adhesive plaster, and then bandage ear to side of face till such time as healing takes place. If the edges of the wound are thickened, remove the thickening with the finger and touch with lunar caustic, so as to set up healthy granulation. In deep wounds of the skin and the muscles strong sutures are requisite, and of course drainage of the wound must be provided for. For the general treatment of all wounds the following lotion may be used:

Sulphate of zinc	.	.	.	1 drachm.
Sulphate of alum	.	.	.	1 drachm.
Permanganate of potash	.	.	.	1 drachm.
Water	.	.	.	1 pint.

Dissolve and apply to the wound several times a day, or if necessary syringe it out with the lotion, which can be further diluted as recovery takes place. All wounds ought to be thoroughly cleansed, and if bleeding is severe this can usually be arrested, either by the application of cold water, some styptic agent such as tincture of steel, or by the application of pressure. In the case of an artery that has been torn, if of sufficient size, the best plan is to put a ligature round it, which may consist of a piece of catgut or silk. Bleeding from veins is denoted by a continuous flow, whereas that from an artery is thrown out in jets and of a bright scarlet colour. The loss of a few ounces of blood is not of much significance, but prolonged bleeding may lead to death from syncope.

Bruises and Sprains

Both bruises and sprains are of common occurrence. When a part is bruised it usually swells, whilst a sprain may be accompanied by swelling, also by pain, and a variable degree of lameness. The ligamentous and tendonous structures in connection with the limbs are often sprained, therefore it is expedient for one to become acquainted with the elementary principles of treatment. Bruises should be treated with an evaporating lotion immediately after the injury, but after twelve hours or so hot

water is as useful as any other application. Six ounces of methylated spirit mixed with the same quantity of vinegar makes a good evaporating lotion, and the bruised part should be wetted with this several times a day. The same treatment will answer for sprains, more especially if a bandage is applied around the sprained part.

Bee, Wasp and Adder Stings

Instances have been recorded in which dogs have been severely stung by bees, resulting in the death of the animals. It commonly happens that the dog, in order to rid itself of the source of the irritation, snaps at the bees, and this results in the animal being severely stung inside the mouth and at the back part of the throat. Convulsions usually come on, and in spite of treatment the dog usually dies. As an external application a solution of ammonia, or vinegar, or powdered blue is as useful as any remedy, and to prevent the convulsions it is advisable to give a mixture of bromide of potassium and hydrate of chloral, that is, provided the dog is able to swallow. From ten to thirty grains of each of these drugs may be given every three or four hours in a tablespoonful of water; but after the first three doses have been administered the chloral should be discontinued, but the bromide may be continued for several days.

INDEX

A

Adcock, Mr, 174
 Adder-stings, 306
 "Afghan Bobs" (Hound), 138
 Afghan Greyhound, *see* Greyhound, Afghan
 Airedale Beagles, 185
 Aldenham Harriers, 147
 Aldershot Beagles, the, 185
 Alken, referred to, 79
 Amaurosis, 224
 American Beagle Club, 182
 Annual Peterborough Show, *see* Peterborough
 Antimony Poisoning, 259
 Arsenic Poisoning, 258
 Asiatic Greyhound, 139
 — Hound, 138
 Association of Masters of Harriers and Beagles, 144, 146

B

Badminton (Hunting Volume), 78
 Badminton Hounds, 75
 Bakewell, Robert, 15
 Ballymartle Beagles, 191
 Banff, Mr, 138, 140
 Barnard, Cary, 138
 Barry, Mr, 85
 Basset-hound, 17, 200; kennel management, 204; packs, 201-202
 — Club, 202
 Beagles, 17, 181; packs, 185-191
 Beaufort, Duke of, 75, 86; on hunting, 78
 Beckford, Peter (quoted), 142
 Bee-stings, 306

Bellmount Beagles, 191
 Bentinck, Lord Henry, 87
 Berkley Hunt, 14
 Berwick Beagles, 185
 Bilsdale Pack, 75
 Blakeborough, J. Fairfax (quoted), 71
 Bladder, Diseases of, 265-268
 Bloodhounds, 17, 129; kennel management, 136; man-tracking, 129-133
 "Blue Cap" (Hound), 87
 Boarhounds, 168, 174
 Boothby, Mr, 14
 Border Counties and North Wales Otter-hounds, 153
 Boroughbridge Meet, 85
 Borzoi, 18, 159 *et seq.*
 — Club, 160
 Boulton & Paul (Norwich), portable kennels, 211
 Bowels, inflammation of, 274
 Brighton Beagles, 186
 British Museum, Egyptian Hound's head in, 88
 Brocklesby Hunt, 13
 Bronchitis, 244
 Bronwydd Beagles, 186
 Bruce, Robert, hunted by Bloodhounds, 130
 Bruises and Sprains, 305
 Buckland Beagles, 186
 Bucks Otter-hounds, 151, 154
 Bushey Heath Beagles, 186

C

Caius, Dr J., 88, 129
 Cameron, Mr, 149
 Carlisle Otter-hounds, 153

Carmarthenshire Otter-hounds,
see Pembrokeshire and Carmarthenshire Otter-hounds
 Carrington, Lord, 71
 Cataract, 223
 Catarrh, 247
 Cecil, on Fox-hunting, 67;
 (quoted), 76
Chase, The, on the Fox, 77
 Cheriton, William, 154
 Cheriton Otter-hounds, 149, 154
 Cheshire Beagles, 186
 Chest Founder, 249
 Chloroform, 260
 Christchurch (Oxon) Beagles,
 186
 Clay, Mr Hastings, Otter-hounds,
 155
 Cleveland, Duke of, 87
 Cleveland (Yorks) Pack, 75
 Cockermouth Beagles, 187
 "Contest" (Hound), 87
 Continental man-tracking by
 Bloodhounds, *see* Bloodhounds
 Convulsions, *see* Fits
 "Coomassie" (Greyhound), 90
 Corbet, John, 79, 86
 Cornea, Opacity of, *see* Opacity
 of the Cornea
 Coryza, *see* Catarrh
 Coursing, 88 *et seq.* *See also*
 National Coursing Club
 Cox, on Bloodhounds, 129
 Criminals, Bloodhounds for Track-
 ing, *see* Bloodhounds
 Cropping of Ears, 174, 304
 Crowhurst Otter-hounds, 155
 Culmstock Otter-hounds, 154

D

Dachshunds, 17, 191 *et seq.*;
 defects, 198; kennel manage-
 ment, 199 *et seq.*
 "Daniel" (quoted), 132
 Dartmoor Otter-hounds, 155
 Davies, Mr David, Otter-hounds,
 156
 Davison, Mr, 156
 Dawson, William, 82

Deerhound, 18, 164 *et seq.*; char-
 acteristics, 90
 — Scottish, 165
 De Langley, Edmund, 88
 Devonshire, Duke of, 86
 Diarrhoea, 276
 Digestive Organs, Diseases of,
 269-277
 Diseases: eyes, 271 *et seq.*; skin
 and ears, 225 *et seq.* *See also*
 under the names of Diseases
 Dislocations, *see* Fractures
 Distemper, 283-291
 Dogs, destruction of, methods,
 259; racing of whippets, 206
 et seq.
 Dumfriesshire Otter-hounds, 148,
 151, 156
 Dysentery, 276

E

Ears, Diseases, 225; rounding and
 cropping, 174, 304
 Easingwold Hunt, 81
 East of Scotland Otter-hounds,
 156
 Eclampsia, *see* Parturient Ec-
 lampsia
 Eczema, 226
 Edinburgh Beagles, 190
 Effingham, Earl of, 85
 Egyptian Hound, mummy in
 British Museum, 88
 Elizabeth, Queen, coursing, 88;
 pack of Beagles, 181
 Elk Hound, 18
 England, Beagle packs, 185 *et*
 seq.; Harrier packs, 143-146
 English Beagle Club, 182
 Enteritis, 274
 Entozoa, *see* Worms
 Epilepsy, 279
 Eskdale Beagles, 190
 Essex Otter-hounds, 156
 Exeter College (Oxon) Beagles,
 187
 Eyelids, Diseases and Injuries,
 222-223
 Eyes, Diseases of, 217 *et seq.*

F

- Farndale Pack, 75
 Featherstone, Sir Harry, 81
 Fits, 278 *et seq.*
 Fitzhardinge, Lord, 14
 Foljambe, G. S., 87
 Fox, 71 *et seq.*; bell-ringing custom, 77. *See also* Fox-hunting
 Fox Beagle, for Hare-hunting, 142
 Foxbush Harriers, 147
 Foxhound, 65-87; breeding, 14; conformation, 15, 61; ears, rounding of, 304; evolution of, 71; for Hare-hunting, 144; contrasted with Harriers, 143; for Otter-hunting, 148; crossed with Otter-hounds, 152; running riot, 74-75
 — Kennel Stud, 87
Foxhound Stud Book, The, 67
 Fox-hunting, 13, 65 *et seq.*; Duke of Beaufort on, 78. *See also* under Fox
 Fractures and Dislocations, 297 *et seq.*
 "Fullerton" (Greyhound), 92
 "Furrier" (Hound), 87
 Furness Beagles, 187

G

- Gas, for destroying dogs, 260
 Gastric Catarrh, 272
 Germany, Dachshund Clubs, 191
 Glaucoma, 224
 Grafton, Dukes of, 86
 Granby, Lord, 86
 Great Dane, 173 *et seq.*; cropping of ears, 174; kennel management, 179
 Great Dane Club, 176
 Greaves's Pack (Beagles), 187
 Greyhound, 18; anatomy, 33; conformation, 90; management, 88 *et seq.*
 —, Afghan, 138
 —, Russian, *see* Borzoi
 Gullet, injury to, 270

H

- Halcombe Harriers, 143
 Hambleton Hunt, 81
 Hare-hunting, 16, 141. *See also* Coursing
 Harlequin Great Danes, 175
 Harrier, 16, 141 *et seq.*; contrasted with Foxhound, 143; packs, 143-146
 Hawkstone Otter-hounds, 158
 Horsell Beagles, 187
 Hounds, anatomy, 25-60; conformation, 61; destruction of, methods, 259; diseases, 225, 271; injuries, 302; instinct, 73; internal organs, 35; kennels, 211; points, 21-24. *See also* under names of Hounds
 Hunting, Fox, *see* Fox-hunting

I

- Illustrated Sporting and Dramatic News*, on Otter-hunting, 149
Indian Kennel Gazette (quoted) 140-141
 Inflammation of the Bowels, *see* Bowels, Inflammation of
 Injuries, 302
 Instow Beagles, 187
 Ireland, Beagle packs, 190; Harriers, 143, 146
 Irish Wolfhound, *see* Wolfhound, Irish
 — — Club, 171

J

- Jascoyn, Sir Thomas, 86
 Jaundice, 261-264
 Jefferson, C. H., 150
 Jones, A., 151

K

- Kemp, C. W. M., 147
 Kennel Club, 138, 182

Kennel Lameness, 249 *et seq.*
 Kennels, Portable, 211 *et seq.*
 Kidneys, Diseases of, 264-268
 King's Shropshire Light Infantry,
 159
 Kitchingman, Henry, 82
 — Val, 82
 Krehl, George R., 200

L

Lameness, *see* Kennel Lameness
 Lascelles, Lascelles, 82
 Legard, E., 86
 — Rev. C., 87
 Lethal Chamber, 260
 Lewes, T. P., Otter-hounds, 158
 Lichfield Garrison Beagles, 188
 Littleworth, Wm., 149
 Liver, Diseases of, 261 *et seq.*
 Lloyd, Sir Thomas, 186
 Lurchers, 89

M

Madden, Rt. Hon. D. H.
 (quoted), 77
 Madness, 279-280
 Magdalen Beagles, *see* New Col-
 lege and Magdalen Beagles
 Man-tracking, *see* Bloodhounds
 Mange, 230
 Markham, Gervase, 88; on
 Bloodhounds, 130
Marmion (quoted), 88
 Marriott, Randolph, 82
Master of the Game, The, (quoted),
 65
 Mastiff, 174
 Mavor, R., founds Bushey Heath
 Beagles, 186
 Melville, Whyte (quoted), 13
Memoir of the Rev. John Russell
 (quoted), 77-78
 Meynell, Hugo, 14, 78-79, 85
 Middleton, Lord, 14, 86
 Millais, Sir Everett, 200
 Miller, owner of "Misterton"
 (Greyhound), 90
 "Misterton" (Greyhound), 90

Monte Cagnolo, statuary of dogs
 found at, 88
 Mount Mellick Beagles, 190
 Moyola Park Beagles, 191
 Musters, John, 87

N

National Coursing Club, 89; rules,
 94-110
 Natural History Museum, stuffed
 Afghan Hound at, 138
 Nervous System, Diseases of,
 278-282
 New College and Magdalen
 Beagles, 188
 "Nimrod," referred to, 79; on
 Hare-hunting, 142
 Norfolk, Duke of, 90
 Norfolk, Hare-coursing, 89
 Northern Counties Otter-hounds,
 151, 157

O

Old English Harriers, 143
 Onslow, Earl of, 200
 Opacity of the Cornea, 221
 Ophthalmia, 217-221
 Oriental Hounds, 138
 Osbaldistone, 87
 Otter-hounds, 17, 148 *et seq.*;
 Foxhound cross, 152; packs,
 153 *et seq.*

P

Paralysis, 281
 Parturient Eclampsia, 281
 Pelham, C., 13, 86
 Pembrokehire and Carmarthen-
 shire Otter-hounds, 158
 Pennistone Harriers, 143
 Pen-y-Ghent Beagles, 188
 Peterborough Harrier and Beagle
 Show, 144, 147
 Pick, W. (York), Racing Calendar,
 81; (quoted), 84-85
 "Pityriasis Versicolor," 236
 Pleurisy, 245

Pneumonia, 238
 "Pocket" Beagles, *see* Beagles
 Poisons and Poisoning, 255 *et seq.*
 Pope (quoted), 25
 Price, Rev. J., Beagles, 188
 — Mrs, Beagles, 188
 Prussic Acid Poisoning, 259
Punch (quoted), 83

Q

Quorn Hunt, 14

R

Rabbit-coursing, 206
 Rabies, 280
 Race Dog, *see* Whippet
 Racing Calendars, 81; W. Pick's
 (quoted), 84-85
 Ramsden, Sir John, 81
 Respiratory Organs, Diseases of,
 238 *et seq.*
 Rheumatism, 249 *et seq.*
 Richmond (Yorks) Beagles, 188
 Rickards, L. E., 147
 Ringworm, 235
 Rosendale Harriers, 144
 Roxby and Cleveland Pack, 75
 Royal Agricultural College
 Beagles, 189
 Royal Rock Beagles, 189
Rural Sports (quoted), 132
 Russell, Rev. John (quoted), 71,
 77-78
 Russian Greyhound, *see* Borzoi
 — Wolfhound, 159

S

"Sanguinari," *see* Bloodhounds
 "Satan" (Boarhound), 174
 Scotland, Beagle packs, 190;
 Harriers, 143
 Scott, Sir Walter (quoted), 88
 Scottish Deerhound, *see* Deer-
 hound, Scottish
 Scrope, Conyers, Pack, 75

Seistan (Afghanistan), Hound
 from, 138
 "Shahzada" (Afghan Hound),
 138
 Sheep, Leicester Breed, 15
 Sheep-worrying, 75
 Shopwyke Beagles, 189
 Siberian Hound, 160
 "Singing" Beagles, *see* Beagles
 Skin, Diseases of, 225
 Slane Basset, County Meath,
 Basset Pack, 201
 Smith, Asshetor, 87
 Snap Dog, *see* Whippet
 Somerville, 71; on Bloodhounds,
 129; quoted, 77; referred to, 86
 Southern Hound, 17
Sporting and Dramatic News,
see Illustrated Sporting and
Dramatic News
Sports and Pursuits of the
English (quoted), 13
 Sprains, *see* Bruises and Sprains
 Stag, Coursing, 88
 Staghounds, 149, 164
 Stainrigg Basset-hounds, 201
 Stings, 306
 Stomach, Diseases of, 271 *et seq.*
 Strychnine Poisoning, 257
 Stud Book Harriers, 144
Study of Shakespeare and of
Elizabethan Sport (quoted), 77
 Surbiton Beagles, 189

T

Talbot, the, 131
 Teething, 269
 Terrier for Rabbit-coursing, 207
 Tetcott Otter-hounds, 158
 Thornton, Colonel, 14, 81, 85, 87
 Throat, 269
 Tracy, Mr Courtney, Otter-
 hounds, 157
 Trethall Harriers, 144
 Trinity College (Cambs) Beagles,
 189
 "Trojan" (Hound), 79, 87
 Turberville, 71, 76; on Blood-
 hounds, 130

Tweedie, Major-General (quoted),
73
Tyrwhitt, Sir John, 13

U

United States, Bloodhounds and
man-tracking, 133
Urinary Apparatus, Diseases of,
264-268

V

Vavasour, Sir Walter, 86
Vernon, Lord, 87
Vomition, 271
Vyner, Robert, 13

W

Wales, packs of Harriers, 143-146
Wallace, hunted by Bloodhounds,
130
Warde, John, 86
Warwickshire Beagles, 189
Wasp Stings, 306
Waterloo Cup, 89; Table of
Winners, 110-128
"Weather-gage" (Hound), 87
Welton Dale Harriers, 144
West Cumberland Foxhounds,
150
—— — Otter-hounds, 150, 154
Wharfedale Otter-hounds, 157
Whippet, 206 *et seq.*; kennel
management, 209

Whippet Club, 207
Whitbread, Mr, 138
Willoughby, Mr, 86
Wilton, Lord (quoted), 13
Winn, Sir Roland, 86
Wolf-coursing, in Russia, 159-160;
in Ireland, 168
Wolfhound, 18
——, Irish, 165, 167 *et seq.*
——, Russian, 159
Wooddale Beagles, 190
Worcester Park Beagles, 190
Worcestershire Foxhounds, 151
Worms, 292-296; cause of fits,
278
Wounds, 302 *et seq.*

X

Xenophon, records of Hare-
hunting, 141; of Fox-hunting,
65

Y

Yarborough, Lord, *see* Pelham,
Charles
"Yellows, The" (disease), 261
Yorkshire, hunting in, 87
Ynysfor Otter-hounds, 157

Z

"Zardin" (Hound), 138, 140
Zuetta, Afghan Hound shown at,
138

Webster Family Library of Veterinary Medicine
Cummings School of Veterinary Medicine at
Tufts University
200 Westboro Road
North Grafton, MA 01536

